

**Residential Development, Fortfield Road,  
Terenure**

**Traffic & Transport Assessment  
222102-PUNCH-XX-XX-RP-C-0008**

**December 2024**

## Document Control

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## **1 Non-Technical Summary**

- 1 The development will comprise a Large-Scale Residential Development (LRD) on a site at Fortfield Road, Terenure of 284 no. units delivering 19 no. houses and 265 no. apartments made up of studios; 1 beds; 2 beds; 3 beds; and 4 beds. The development will also provide community, cultural and arts space and a creche. Communal internal space for residents will also be delivered. Provision of car, cycle and motorbike parking will be provided throughout the development, including at basement and surface level. Vehicular/pedestrian/cyclist access from Fortfield Road. Proposed upgrade works to the surrounding road network is also included. All associated site development works, open space, services provision, ESB substations, plant areas, waste management areas, landscaping (both public and communal) and boundary treatments.
- 2 For the purposes of our assessment, the TRICS database and statistics from the 2022 Census were consulted to provide an equivalent trip rate for the proposed development site. Refer to Section 5 for further detail.
- 3 It is proposed to access the proposed development via Fortfield Road. Capacity analysis was carried out on the following junctions:
  - i. Fortfield Road / College Drive / Proposed Development Junction
  - ii. Fortfield Road / Templeogue Junction
  - iii. Fortfield Road / Wainsfort Road Junction

The analysis shows that there is capacity for the proposed development traffic to utilise the proposed upgraded development junction, and the Fortfield Road/Wainsfort Road Junction up to the Design Year 2043. The Fortfield Road / Templeogue Junction was found to be above the practical capacity without the development in place in the 2028 Do Nothing scenario (AM Peak only) and made slightly worse with the proposed development in the 2028 Design Year, but this is considered acceptable/expected in an urban area.

- 4 Parking spaces for the proposed development have been provided to comply with the maximum permissible requirements set out in the Dublin City Council Development Plan 2022-2028 and 'Sustainable Residential Development and Compact Settlements - Guidelines for Planning Authorities' (January 2024).
- 5 Secure cycle parking facilities have been provided within the development and exceed the requirements set out in the Dublin City Council Development Plan.

## **2 Introduction**

### **2.1 Background**

PUNCH Consulting Engineers were appointed by 1 Celbridge West Land Limited to prepare a Traffic and Transport Assessment for a proposed Large-Scale Residential Development (LRD) at a site located on Fortfield Road, Terenure, Dublin 6W.

This assessment has been carried out in accordance with the TII's Traffic and Transport Assessment Guidelines (May 2014) and refers to the Design Manual for Urban Roads & Streets (DMURS). Sections from the Dublin City Council (DCC) Development Plan (2022 - 2028) have been used to help describe the development location and its local context.

The purpose of the TTA report is to assess the potential impact of the proposed development on the existing local transport network and to ensure that the proposed site access and the existing junctions, which fall within the scope of the study, will have adequate capacity to carry the development traffic and the future growth in existing road traffic to the design year and beyond. An assessment of the accessibility of the site for cyclists, pedestrians, and public transport users has also been made.

### **2.2 Scoping**

Consultation was undertaken with Dublin City Council (DCC) at S247 Meeting of 19<sup>th</sup> December 2023 to allow them to express their views/comments regarding the proposed development prior to progressing the planning stage design development.

A Draft copy of the TTA was supplied to DCC on the 29<sup>th</sup> of January 2024, together with a Draft Site Layout prior to a subsequent meeting with the DCC Transportation Planning representatives.

This document has been further informed by the LRD Opinion Meeting of 29<sup>th</sup> May, followed by receipt of the DCC Written Opinion on 24<sup>th</sup> June. This document has been updated to address items raised by DCC in their LRD Opinion document 'Notice of LRD Opinion' (Planning Authority Ref No. LRD6058/24) that relate to the engineering aspects of the proposed development at Fortfield Road, Terenure.

A separate planning submission (with associated pre-planning engagement) has also been advanced with South Dublin County Council (SDCC) for the proposed Works located on lands that are within SDCC's remit.

### 3 Existing Conditions

#### 3.1 Site Location

The main site consists of a greenfield site which was previously used for growing vegetables and as sports fields. The site is now vacant having been surplus to requirements since 2018. The topography of the site is relatively flat falling gently from south to north. The site is located in Terenure, Co. Dublin, within 1km from Terenure Village. It was part of a larger site which has been used for educational purposes by the Carmelite Community at Terenure College.

The proposed development is to be accessed via Fortfield Road. The site is bounded to the north by existing housing on Greenlea Road, by the Carmelite Order (Terenure college) to the south, existing residential development to the west on Fortfield Road and by Terenure College Rugby Club to the northeast. Refer to Figure 3-1 below. There is one existing access route onto the site from Fortfield Road as shown in Figure 3-2. This serves as direct access to the pre-existing sports pitches on the site. The proposed scheme will integrate the site into the surrounding footpath networks providing convenient pedestrians routes linking the site with the surrounding area.

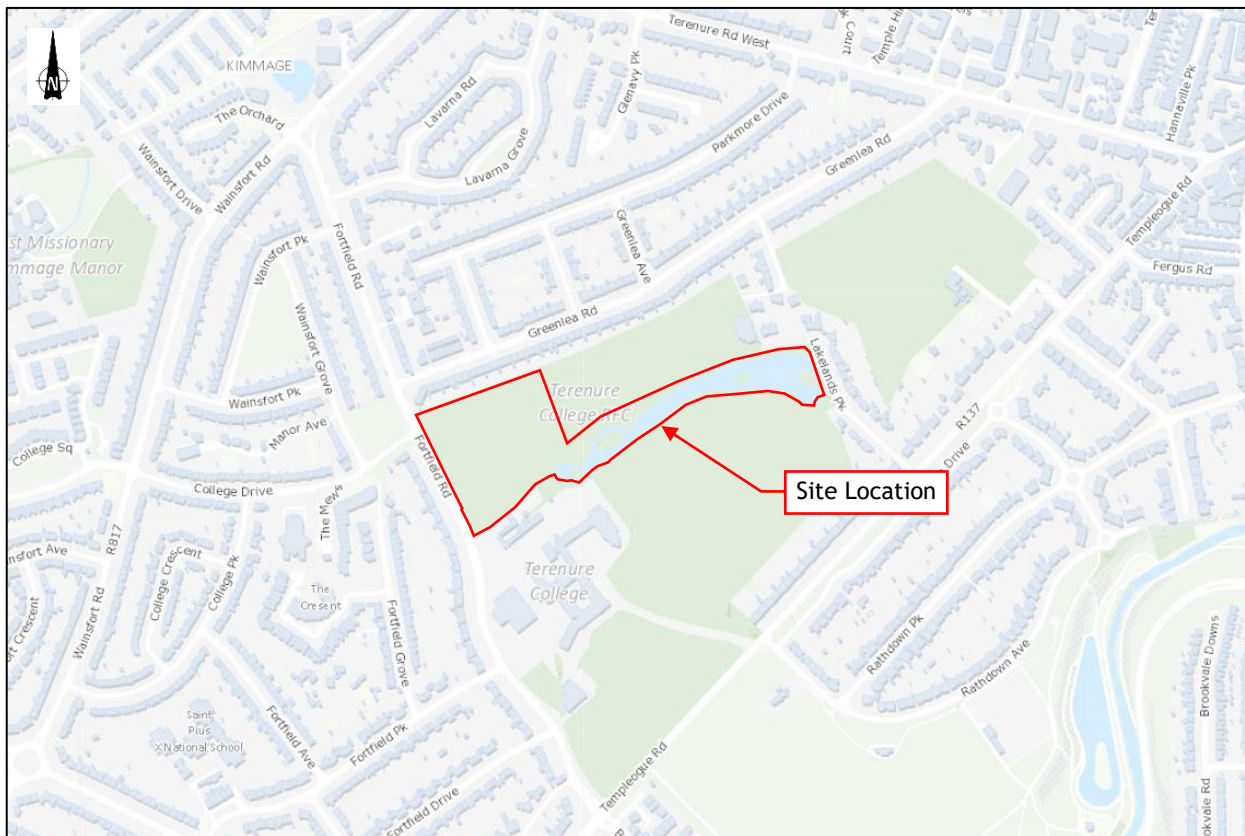


Figure 3-1: Site Location Plan (Ref: <https://viewer.myplan.ie/>)



Figure 3-2: Existing Access on Fortfield Road (Photo from PUNCH site visit)

### 3.2 Existing Road Network

The site location in relation to the wider road network is detailed in Figure 3-1. The layout of the local road network is presented in Figure 3-3. A brief description of the local road network is provided below. All the roads in the vicinity described below have a speed limit of 50 km/hr and are illuminated by public lighting.



Figure 3-3: Site location and surrounding road network  
(Ref: <https://www.openstreetmap.org/#map=17/53.30594/-6.29768>)

### 3.2.1 Fortfield Road

Fortfield Road is the principal road serving the proposed development. It links the site with the R137 Templeogue Road (to the south) and the R817 Wainsfort Road (to the north). The road provides vehicular access to several residential housing estates as well as many residential driveway accesses along the road. Refer to Figure 3-4. It is a single lane two-way carriageway with footpaths on both sides of the carriageway.



Figure 3-4: Fortfield Road (Looking South)

Along Fortfield Road there is an unsignalised T-junction with College Drive, providing access to the R817 to the west. Refer to Figure 3-5. Please note that it is an intention of the proposed development to introduce a site entrance aligned with College Drive resulting in the proposed establishment of a 4 arm signalised junction at this location.

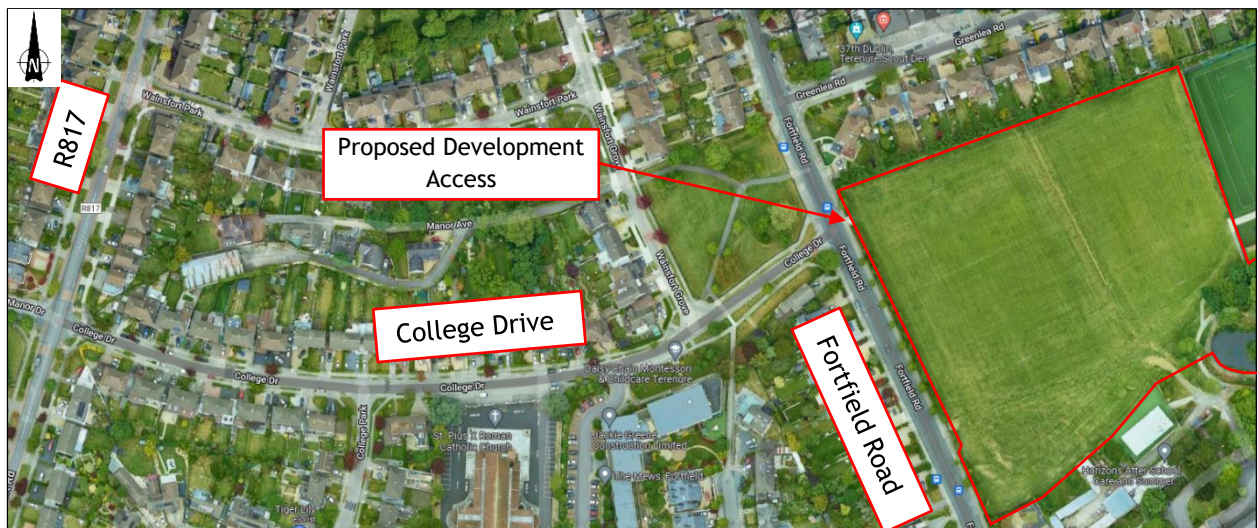


Figure 3-5: College Drive layout © Google Maps

### 3.2.2 Templeogue Road (R137)

Templeogue Road (R137) is a single lane two-way carriageway from the Fortfield Road Junction to the north east, and 2-lane two-way carriageway from the south-west with dedicated bus lanes in either direction. Footpaths are provided on both sides of the road.

The junction of Fortfield Road and Templeogue Road is located approximately 450m south of the proposed site's southern boundary. It is a 4-arm signal controlled junction with Fortfield Road/Bushy Park House heading northwest-southeast, connecting with Templeogue Road (R137). Refer to Figure 3-6.

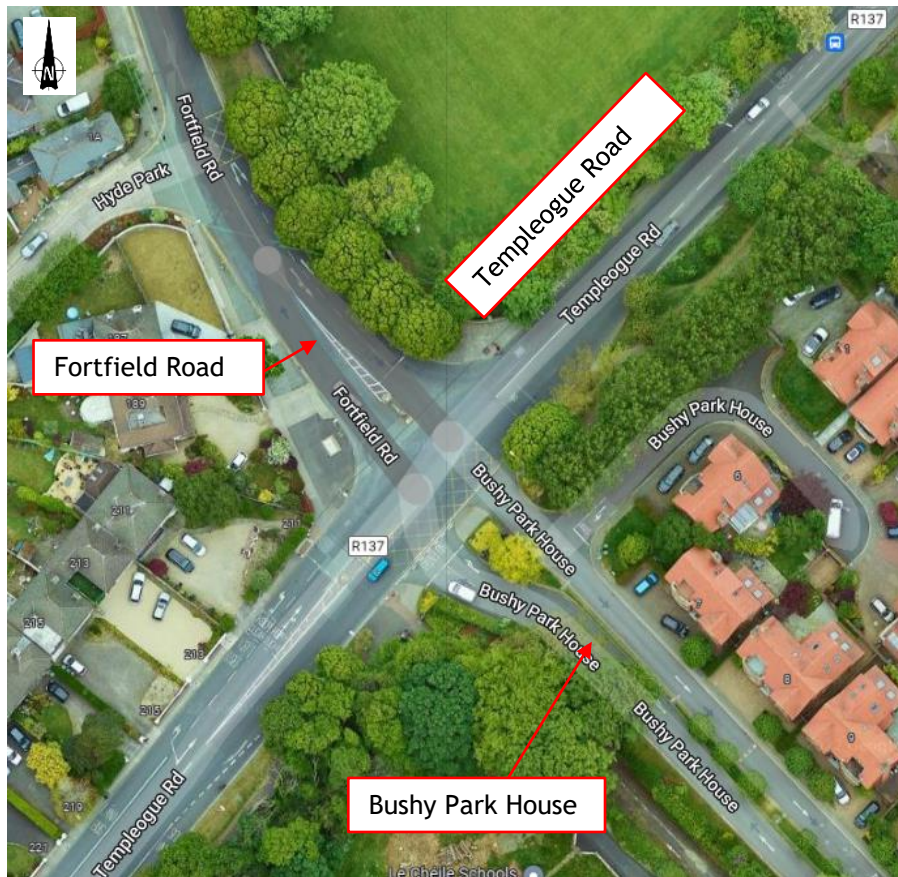


Figure 3-6: Junction of Templeogue Road and Fortfield Road © Google Maps



Figure 3-7: Templeogue Road (Looking North onto Fortfield Road junction) © Google Maps

### 3.2.3 Wainsfort Road (R817)

Wainsfort Road (R817) is a single lane two-way carriageway. Footpaths and designated cycle lanes are provided on both sides of the road. Refer to Figure 3-8 below.



Figure 3-8: Wainsfort Road (Looking North) © Google Maps

The junction of Fortfield Road and Wainsfort Road is located approximately 430m north of the proposed site's northern boundary. It is a 4-arm signalised junction with Fortfield Road/The Orchard heading northwest-southeast, connecting with Wainsfort Road (R817). Refer to Figure 3-9 below.



Figure 3-9: Junction of Wainsfort Road and Fortfield Road © Google Maps

The slip road at the south-east of the junction has been closed and is only open for access to local residential premises from Fortfield Road to the south. Refer to Figure 3-10.



**Figure 3-10: Now Closed Off Slip Road at Junction of Wainsfort Road and Fortfield Road  
(Looking South-West) © Google Maps**

### 3.2.4 M50 Junction 11

Templeogue Road links with the at the M50 interchange Roundabout at Junction 11 M50 approximately 2.5 km to the west. Refer to Figure 3-11.



**Figure 3-11: M50 junction 11 © Google Maps**

### **3.3 Existing Traffic Flows**

Traffic surveys of the following junctions were carried out in order to assess traffic on the existing road network adjacent to the proposed site:

1. Fortfield Road/College Drive Priority Junction
2. Fortfield Road/Templeogue Road/Bushy Park House Signal Controlled Junction
3. Fortfield Road/Wainsford Road/The Orchard Signal Controlled Junction

The surveys were completed by IDASO on behalf of the client on Thursday 11<sup>th</sup> January, Saturday 13<sup>th</sup> January, and Sunday 14<sup>th</sup> January 2024. The traffic survey locations and full traffic survey results are included in Appendix A.

The traffic surveys undertaken at the existing junctions surrounding the development found that on weekdays the mean morning peak hour traffic flows at the generally occurred between 08:00 and 09:45 (AM), and the evening peak hour flows were found to be between 15:15 and 18:15 (PM).

On weekends, Saturday was found to have the highest flows, and the mean morning peak hour traffic flows generally occurred between 11:00 and 12:00 (AM), and the inter/evening peak hour flows were found to be between 11:30 and 15:30 (PM). Therefore, generally at the weekend the flows were consistently high for a period between 11:00 and 15:30. Weekend peak figures were considerably lower than weekday peak figures therefore only weekday peak hours were further tested in the Junction Analysis Section of this report.

The surveyed peak hour turning PCUs for Thursday and Saturday are presented in Figure 3-12 and Figure 3-13 below. It is noted that the surveyed junctions had some variation in their peak hours, e.g. for the weekday peak hour flows, the Fortfield Road/Wainsford Road Junction had an AM peak between 08:45 and 09:45 while Fortfield Road/College Drive Junction had an AM peak between 08:00 - 09:00 therefore peak figures presented in the network diagram are not consistent but are the worst case surveyed figures.

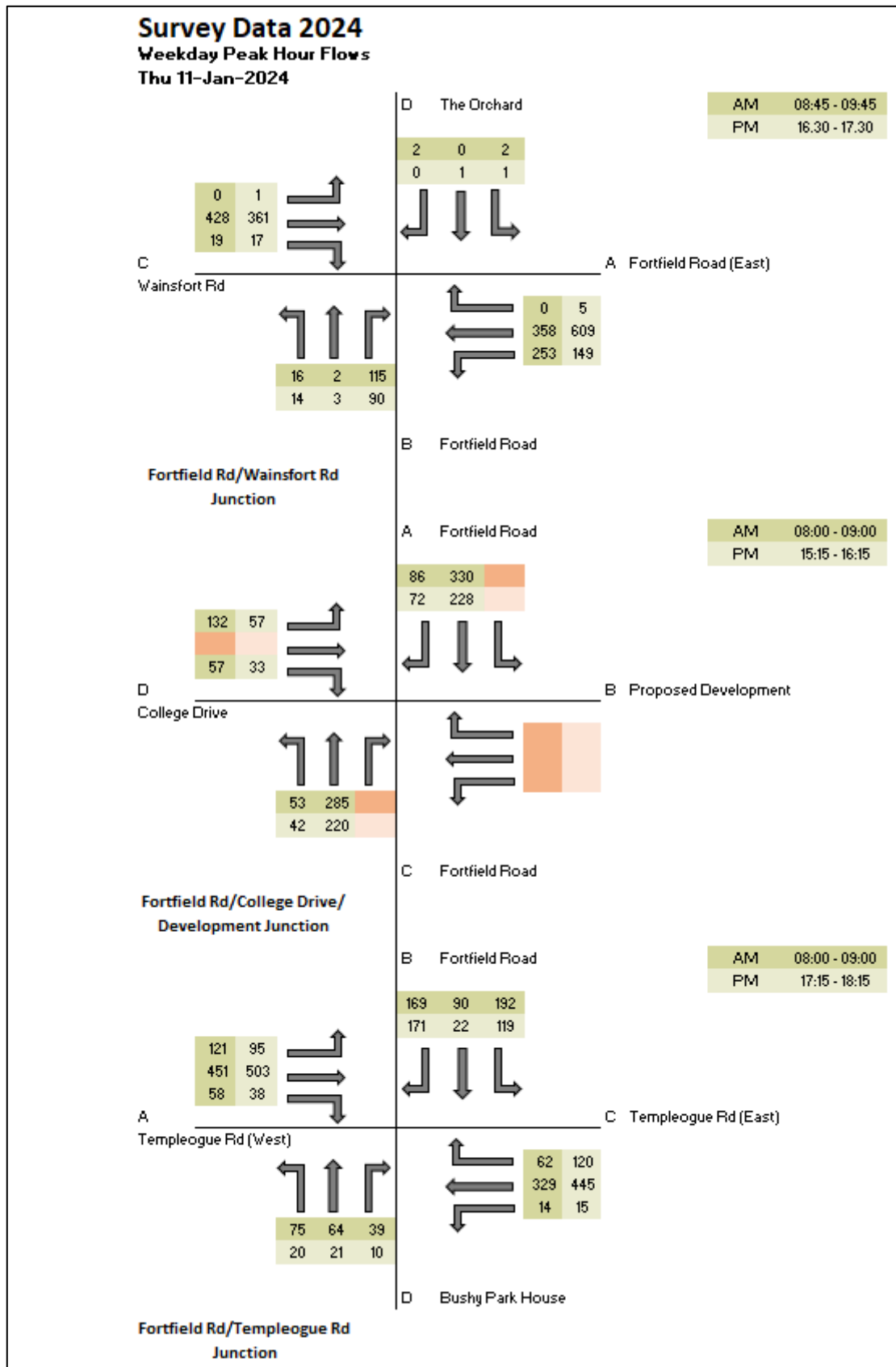


Figure 3-12: Surrounding Junctions Weekday Peak Hour Traffic Survey Results (PCUs)

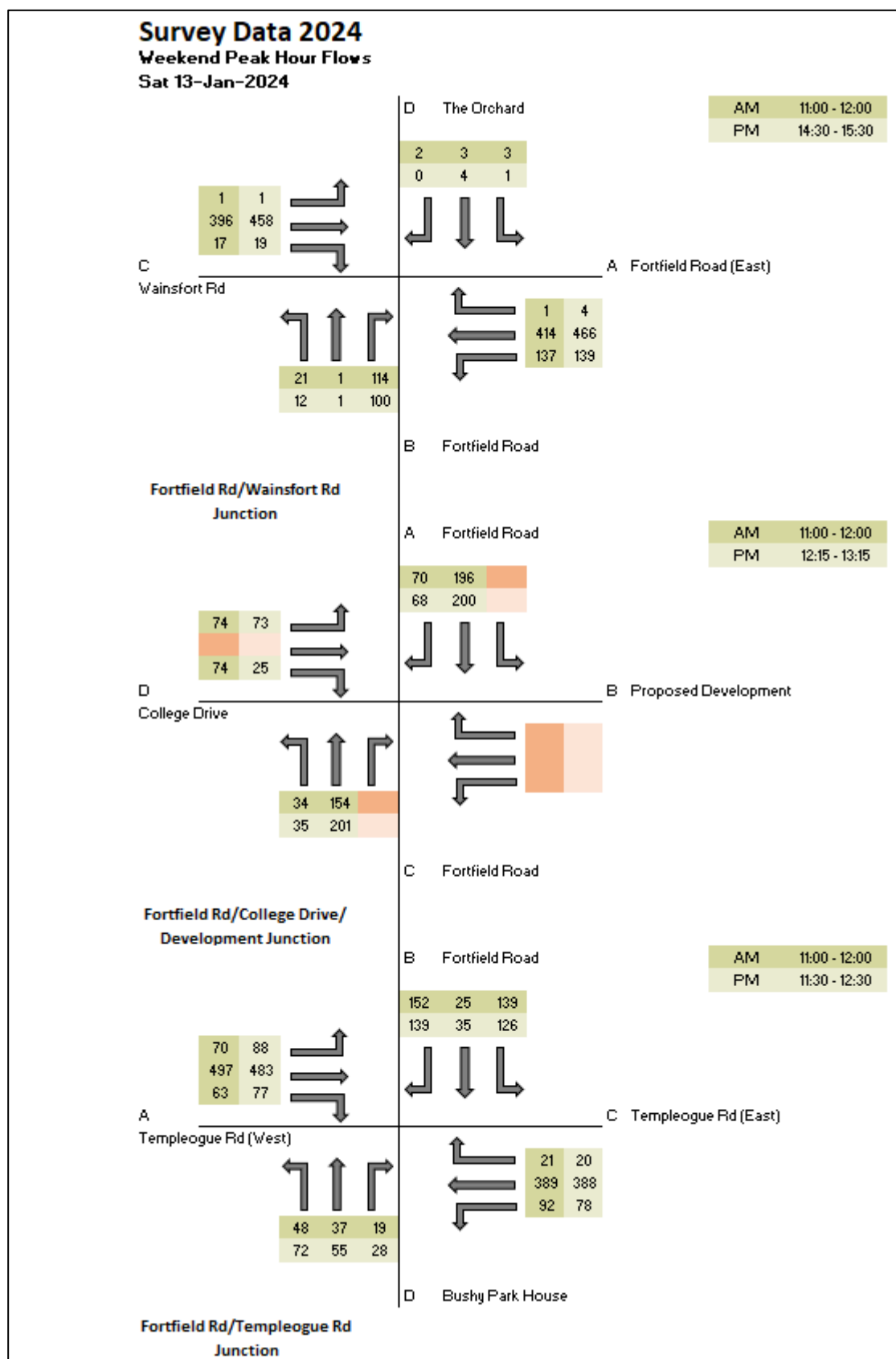


**Figure 3-13: Surrounding Junctions Weekend Peak Hour Traffic Survey Results (PCUs)**

### 3.4 Future Transport Proposals

The site is located in the Dublin City Council Development Plan. General proposals and objectives as noted in the Development Plan are to reduce car dependency and increase the use of sustainable means of transport such as walking, cycling and the use of public transport. The bulk of the proposed site is zoned as Z15- “Community and Social Infrastructure” in the Dublin City Council Development Plan. Residential development is permitted in principle subject to relevant justifications. The remainder of the site is zoned Z11 (Waterway Protection) where the objective is ‘to protect and improve canal, coastal and river amenities.’

#### 3.4.1 Cycle Routes

The National Transport Authority in conjunction with DCC has proposals to upgrade the cycle network. shows the proposed improvements in the vicinity of the site. Fortfield Road, adjacent to the site, is noted as a Feeder Route on the maps.

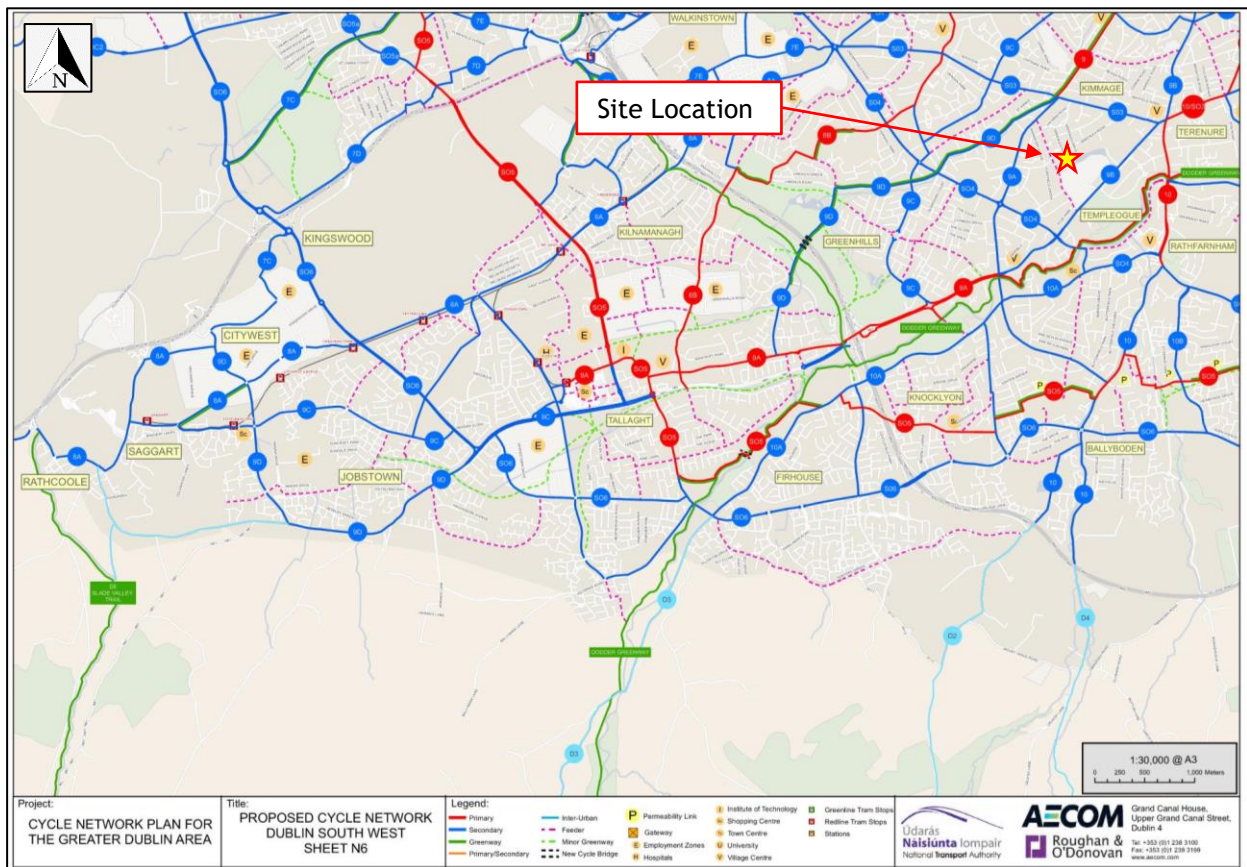


Figure 3-14: Proposed upgrade to the Dublin Cycle Network  
(Ref: NTA Cycle Network Plan for Greater Dublin)

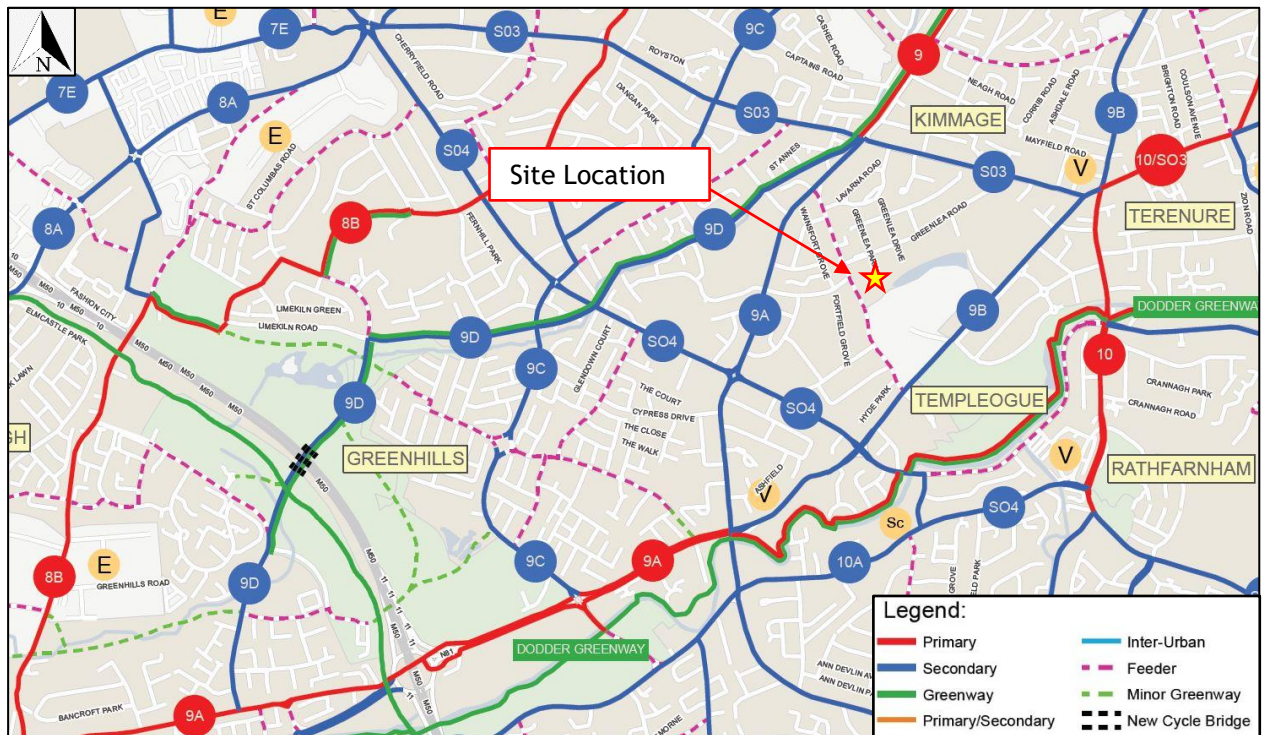


Figure 3-15: Detail from Proposed upgrade to the Dublin Cycle Network

There are large-scale existing cycle networks in place by DCC across the city and suburbs. It is noted that there are dedicated existing bicycle lanes running along Templeogue Road to the south of the development, and a network of urban cycle routes surrounding the development, facilitating the use of this sustainable form of transport. These cycle lanes are separated from the main vehicular lanes.

### 3.4.2 Public Transport

The site of the proposed development is well served by public transport. The 54A bus route serves along Fortfield Road generally every 30 minutes. The Proposed Development is also approximately a 10 minute walk from the 15, 49, 65 and 65B bus routes on the Templeogue Road to the south. A Mobility Management Plan has been prepared to accompany this report and provides further details of the existing public transport services available in the area.

In terms of future public transport proposals, the proposed site is located close to the BusConnects 'Templeogue/Rathfarnham to City Centre Bus Corridor Scheme'. BusConnects is a key part of the Government's policies to improve public transport and address climate change in Dublin. The aim of BusConnects is:

*"to provide improved walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor. The Proposed Scheme is a key measure that delivers on commitments within the National Development Plan (2021-2030), the Transport Strategy for the Greater Dublin Area (2022-2042) the Climate Action Plan (2023) and the National Planning Framework 2040.*

- Taken from [www.templeoguerathfarnhamscheme.ie](http://www.templeoguerathfarnhamscheme.ie) in August 2024

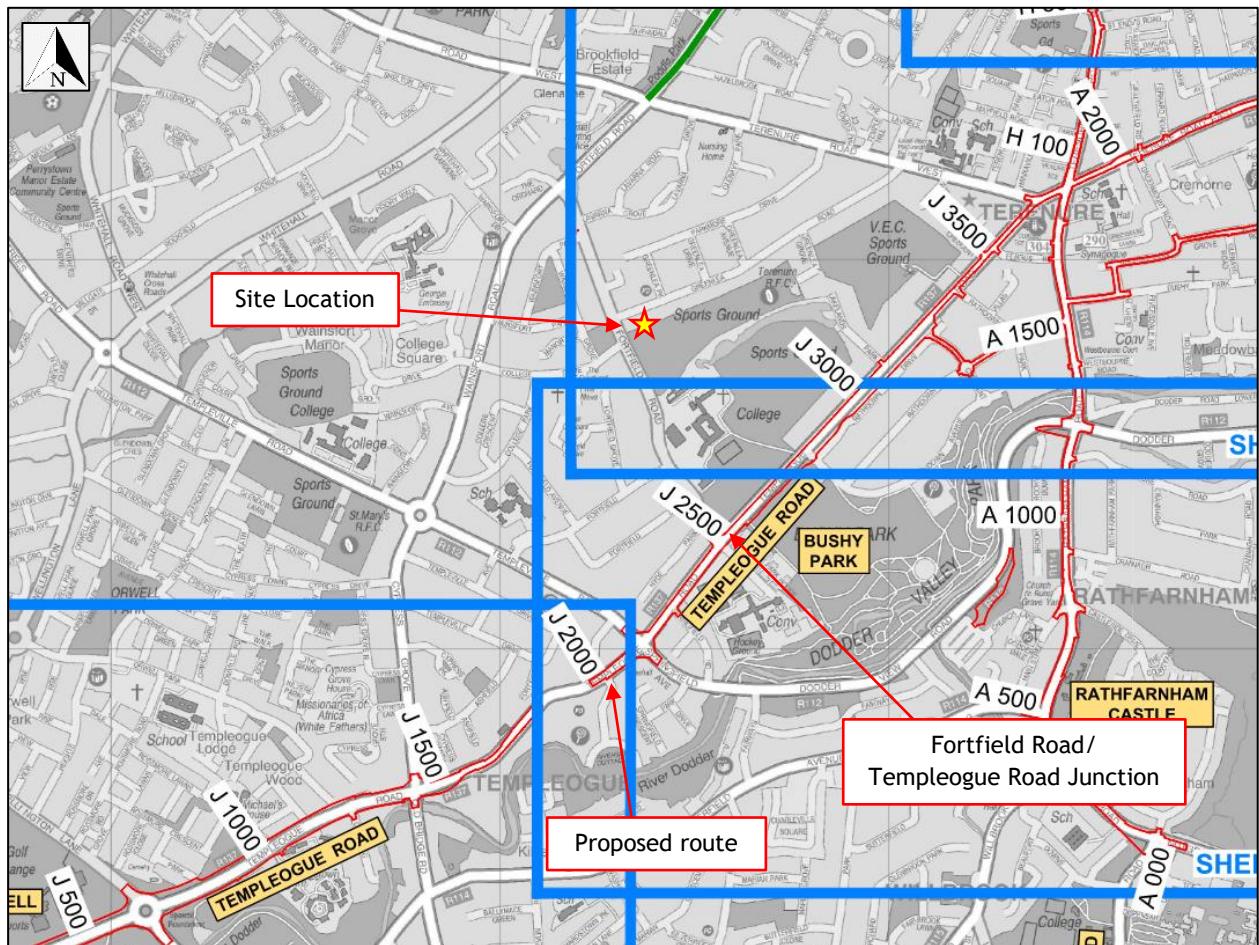


Figure 3-16: Extract from Site Location Map, BusConnects 'Templeogue/Rathfarnham to City Centre Bus Corridor Scheme' (Ref: [www.templeoguerathfarnhamscheme.ie/](http://www.templeoguerathfarnhamscheme.ie/))

### 3.5 Coordination with Other Projects

Adjacent planning consents/applications granted/submitted in the area via DCC and SDCC planning websites have been reviewed. In assessing the traffic impacts of the subject development, the following other developments were considered based on the current data available:

#### 3.5.1 BusConnects

The BusConnects 'Templeogue/Rathfarnham to City Centre Bus Corridor', as noted in section 3.4.2, is located to the south of the proposed development. Traffic implications for the proposed development due to the BusConnects scheme have been reviewed as part of this TTA using publicly available documentation found at [www.templeoguerathfarnhamscheme.ie/](http://www.templeoguerathfarnhamscheme.ie/) (accessed August 2024).

### 3.5.1.1 Junction alterations

- a. A number of changes are proposed at the Fortfield Road/Templeogue Road/Bushy Park House Signal Controlled Junction (Junction 2) including an extension of the eastbound bus lane along Templeogue Road, revised cycle path arrangements, and a new toucan crossing at the eastern side of the junction on Templeogue Road. There are no changes proposed in the directional flow of traffic at the Fortfield Road/Templeogue Road/Bushy Park House Signal Controlled Junction (Junction 2). Thus, traffic can still move in all directions as per the existing layout. Refer to Figure 3-17 which shows the proposed junction layout.
- b. A right turn ban from Fortfield Road to Greenlea Road at Fortfield Road/College Drive Priority Junction (Junction 1) located to the north of the site is proposed. Currently, existing traffic can turn right from Fortfield Road to Greenlea Road. Refer to Figure 3-18.

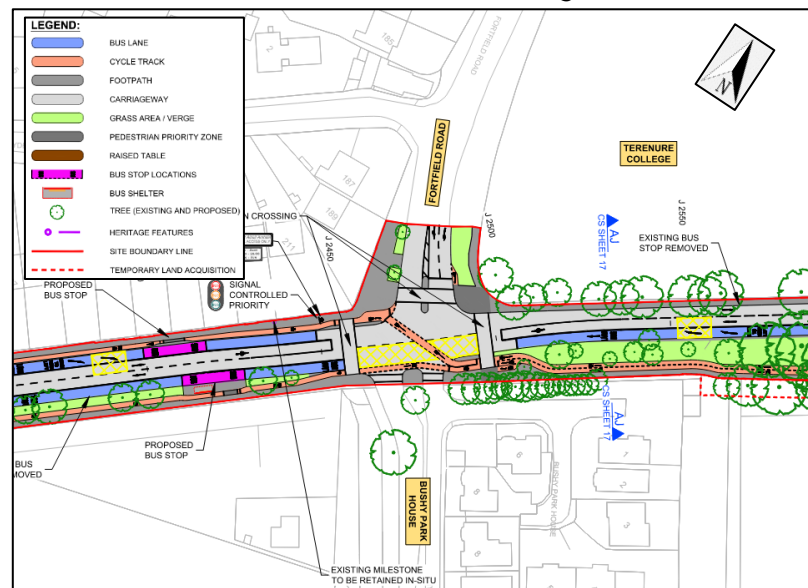


Figure 3-17: Fortfield Road/Templeogue Road/Bushy Park House Signal Controlled Junction (Junction 2).  
Extract from Sheet 34 General Arrangement drawings (Ref: NTA)

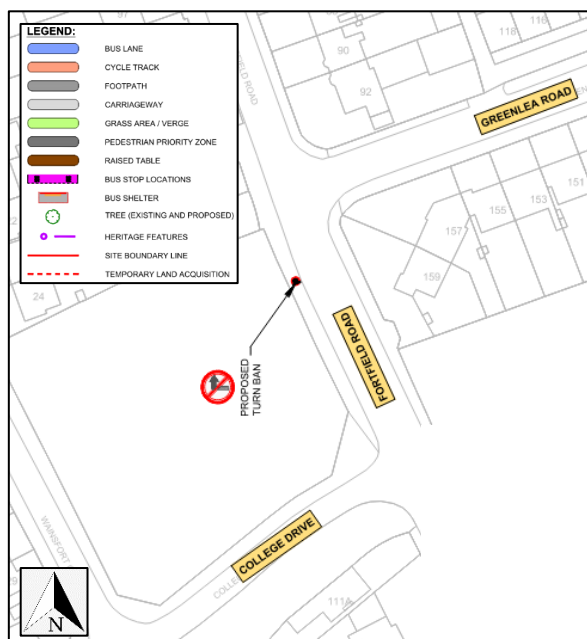


Figure 3-18: Fortfield Road/College Drive Priority Junction (Junction 1).  
Extract from Sheet 38 General Arrangement drawings (Ref: NTA)

### 3.5.1.2 Traffic Impact Assessment

A traffic impact assessment was carried out as part of the BusConnects 'Environmental Impact Assessment' (EIA) for the proposed scheme. Refer to Chapter 6 of the EIA report at [www.templeogueathfarnhamscheme.ie/](http://www.templeogueathfarnhamscheme.ie/) (accessed August 2024).

Potential impacts relating to Construction Phase traffic were analysed. As noted in section 6.4.5.5 of the EIA report additional construction traffic flows upon the surrounding network are expected to be 'Negative, Slight and Temporary'. The cumulative impact of the scheme during the Construction Phase on traffic along Fortfield Road, which is not included as a proposed construction route, is thus assessed to be minimal.

For the Operational Phase, the peak hour people movement was accessed as part of the EIA report (section 6.4.6.1.8), for 'Do Nothing', 'Do Minimum' and 'Do Something' scenarios.

- a. As shown in Figure 3-19 below, a 38% reduction in people travelling via car, an increase of 61% in the number of people travelling via bus, and an increase of 83% in people walking or cycling along the Proposed Scheme is predicted in the 'Do Something' Design Year (2043) AM Peak Hour. This relates to traffic that is inbound towards the city centre.

| Direction                       | Time Period    | Mode of Transport              | Do Minimum   |                 | Do Something |                 | Difference   |                |
|---------------------------------|----------------|--------------------------------|--------------|-----------------|--------------|-----------------|--------------|----------------|
|                                 |                |                                | Hourly Trips | Modal Split (%) | Hourly Trips | Modal Split (%) | Hourly Trips | Difference (%) |
| Inbound towards the City Centre | AM Peak Period | General Traffic                | 370          | 18%             | 231          | 7%              | -140         | -38%           |
|                                 |                | Public Transport               | 1,298        | 62%             | 2,094        | 68%             | 797          | 61%            |
|                                 |                | Walking                        | 196          | 9%              | 207          | 7%              | 12           | 6%             |
|                                 |                | Cycling                        | 215          | 10%             | 546          | 18%             | 331          | 154%           |
|                                 |                | Combined Walking/Cycling       | 411          | 20%             | 753          | 24%             | 342          | 83%            |
|                                 |                | <b>Sustainable Modes Total</b> | <b>1,708</b> | <b>82%</b>      | <b>2,847</b> | <b>93%</b>      | <b>1,139</b> | <b>67%</b>     |
|                                 |                | <b>Total (All modes)</b>       | <b>2,079</b> | <b>100%</b>     | <b>3,078</b> | <b>100%</b>     | <b>999</b>   | <b>48%</b>     |

Figure 3-19: "Table 6.44" Modal Shift of 2043 AM Peak Hour along the Proposed Scheme (Ref: NTA)

- b. As shown in Figure 3-20, a 38% reduction in people travelling via car, an increase of 66% in the number of people travelling via bus, and an increase of 133% in people walking or cycling along the Proposed Scheme is predicted in the 'Do Something' Design Year AM Peak Hour. This relates to traffic that is outbound from the city centre.

| Direction                     | Time Period    | Mode of Transport              | Do Minimum   |                 | Do Something |                 | Difference   |                |
|-------------------------------|----------------|--------------------------------|--------------|-----------------|--------------|-----------------|--------------|----------------|
|                               |                |                                | Hourly Trips | Modal Split (%) | Hourly Trips | Modal Split (%) | Hourly Trips | Difference (%) |
| Outbound from the City Centre | PM Peak Period | General Traffic                | 369          | 22%             | 230          | 9%              | -139         | -38%           |
|                               |                | Public Transport               | 1,032        | 61%             | 1,715        | 66%             | 684          | 66%            |
|                               |                | Walking                        | 86           | 5%              | 173          | 7%              | 88           | 102%           |
|                               |                | Cycling                        | 198          | 12%             | 488          | 19%             | 289          | 146%           |
|                               |                | Combined Walking/Cycling       | 284          | 17%             | 661          | 25%             | 377          | 133%           |
|                               |                | <b>Sustainable Modes Total</b> | <b>1,316</b> | <b>78%</b>      | <b>2,376</b> | <b>91%</b>      | <b>1,061</b> | <b>81%</b>     |
|                               |                | <b>Total (All modes)</b>       | <b>1,685</b> | <b>100%</b>     | <b>2,606</b> | <b>100%</b>     | <b>921</b>   | <b>55%</b>     |

Figure 3-20: "Table 6.45" Modal Shift of 2043 PM Peak Hour along the Proposed Scheme (Ref: NTA)

The above shows that a general move away from private car use, accompanied by an increase in more sustainable forms of transport is expected.

The assessment also looked at changes to the operational capacity for general traffic due to the modal shift and new road layout of the proposed scheme (section 6.4.6.1.15). It is noted that while "some reduction in operational capacity for general traffic along the Proposed Scheme will likely create some

level of trip redistribution onto the surrounding road network”, the reductions in general traffic flows will have a “positive impact to the environment”.

The significance of redistribution impacts along Fortfield Road have been reviewed as part of this TTA. Figure 3-21 best illustrates the change in traffic flows and any redistribution in traffic due the proposed scheme. This includes decreased traffic flows (shown in blue) and redistributed traffic (or increased traffic flows) along alternative routes (shown in red). No redistribution of traffic is shown along Fortfield Road.

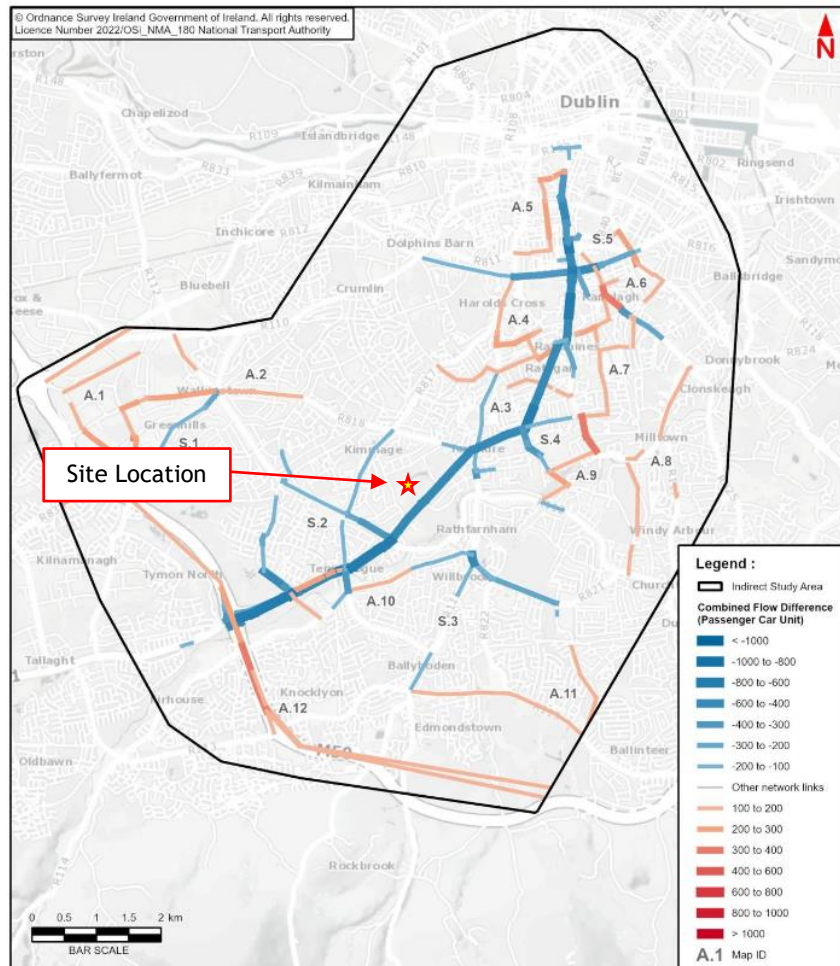


Figure 3-21: “Diagram 6.40” Flow Difference on Road Links (Do Minimum vs. Do Something), AM Peak Hour, 2028 Opening Year. Chapter 6 EIAR.

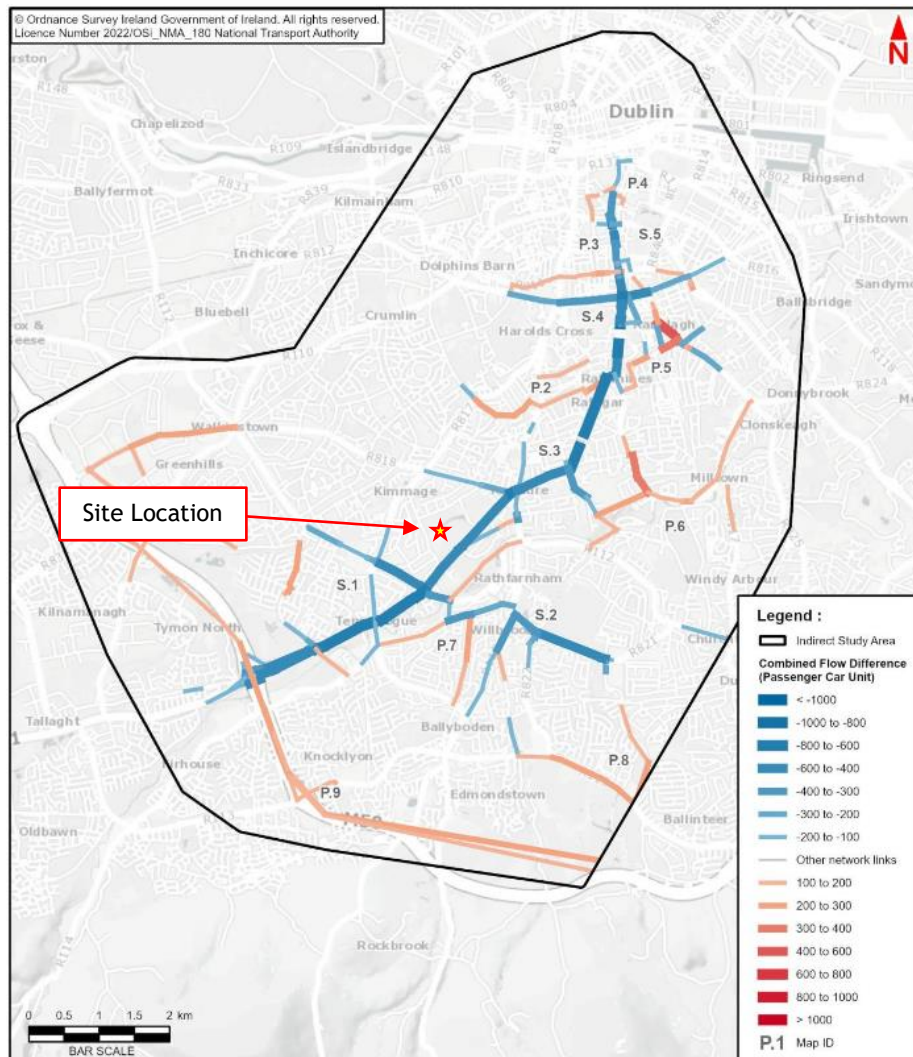


Figure 3-22: “Diagram 6.41” Flow Difference on Road Links (Do Minimum vs. Do Something), PM Peak Hour, 2028 Opening Year. Chapter 6 EIAR.

Finally, it is noted in section 6.4.6.2 that “overall, there will be no significant deterioration in the general traffic environment in the study area as a consequence of meeting the scheme objectives of providing enhanced sustainable mode priority along the direct study area.”

Thus, it is PUNCH’s view that the BusConnects scheme is unlikely to have any long-term negative impacts on traffic along Fortfield Road and/or on the road network in the close vicinity of the Proposed Development. No further analysis has been carried out regarding the BusConnects scheme as part of this TTA.

## **4 Proposed Development**

### **4.1 Description**

The development will comprise a Large-Scale Residential Development (LRD) on a site at Fortfield Road, Terenure of 284 no. units delivering 19 no. houses and 265 no. apartments made up of studios; 1 beds; 2 beds; 3 beds; and 4 beds. The development will also provide community, cultural and arts space and a creche. Communal internal space for residents will also be delivered. Provision of car, cycle and motorbike parking will be provided throughout the development, including at basement and surface level. Vehicular/pedestrian/cyclist access from Fortfield Road. Proposed upgrade works to the surrounding road network is also included. All associated site development works, open space, services provision, ESB substations, plant areas, waste management areas, landscaping (both public and communal) and boundary treatments.

The proposed layout for the development is detailed in the series of drawings by Urban Agency Architects accompanying this report and an extract is included in Figure 4-1.

### **4.2 Development Phasing**

The development will be completed in one phase only.



Figure 4-1: Proposed Site Layout (Ref: Urban Agency Architects)

## 5 Person Trip Generation

### 5.1 Generated Vehicle Trips

The purpose of this section is to determine the overall number of trips that will be generated by the proposed development. The proposed development includes Apartments and Houses.

### 5.2 TRICS Estimate

In order to estimate the likely volumes of traffic that will be generated by the proposed development, trip rates recommended by TRICS (Trip Rate Information Computer System) based on *Total Vehicle Counts* surveys were extracted from the database and applied pro-rata to the relevant number of houses and apartments within the development. TRICS® (v7.10.4) enables its users to undertake calculations, using a number of calculation parameter options, to ascertain potential levels of trip generation for a user-defined development scenario.

It is assumed that the communal amenities are provided for residents alone and therefore will not generate any additional travel journeys to or from the development during peak times. The TRICS generated trip rates based off Total Vehicle Count Surveys for the weekday peak times are presented in Table 5-1 below.

Full details of the TRICS *Total Vehicle Counts* analysis are reproduced in Appendix B.

**Table 5-1: Estimated AM and PM peak hour traffic (PCUs) generated by proposed development using TRICS *Total Vehicle Counts***

| Land Use     | Calculation Factor | TRICS 'Vehicular' Trip rate |           |           |           | Additional Number of Trips |           |           |           |
|--------------|--------------------|-----------------------------|-----------|-----------|-----------|----------------------------|-----------|-----------|-----------|
|              |                    | AM Peak                     |           | PM Peak   |           | AM Peak                    |           | PM Peak   |           |
|              | No. of Units       | AM Arrive                   | AM Depart | PM Arrive | PM Depart | AM Arrive                  | AM Depart | PM Arrive | PM Depart |
| Apartments   | 265                | 0.038                       | 0.117     | 0.105     | 0.061     | 10                         | 31        | 28        | 16        |
| Houses       | 19                 | 0.038                       | 0.117     | 0.105     | 0.061     | 1                          | 2         | 2         | 1         |
| <b>Total</b> |                    |                             |           |           |           | <b>11</b>                  | <b>33</b> | <b>30</b> | <b>17</b> |

### 5.3 Census Estimate

At the request of DCC, 2022 Census Data relating to means of travel (*Census 2022, Profile 7 - Employment, Occupations and Commuting, Table: F7065*) was also reviewed and applied to trip rates recommended by TRICS results based off of surveys which recorded *Total People Counts* (i.e. the total number of people predicted to arrive at and leave the development during the peak hours across all modes of transport: driving, walking, cycling etc).

The 2022 Census data for Motor Car Driver found 18% of residents in Dublin City, and 35% of residents in South Dublin had listed Motor Car Driver as their primary commuting method.

Due to the proposed site being located on the Dublin City Council and South Dublin City Council Local Authority borders, the higher South Dublin Census motor car usage percentage (35%) was applied to the total predicted number of people to arrive at or leave the proposed development during peak hours. The trip rates based off this information for the weekday peak times are presented in Table 5-2 below.

Full details of the TRICS *Total People Counts* analysis are reproduced in Appendix B.

**Table 5-2: Estimated AM and PM peak hour traffic (PCUs) generated by proposed using 2022 Census Data and TRICS *Total People Counts***

| Land Use   | Calculation Factor | TRICS 'People' Trip rate |           |           |           | % Motor Car Drivers | Additional Number of Trips |           |           |           |
|------------|--------------------|--------------------------|-----------|-----------|-----------|---------------------|----------------------------|-----------|-----------|-----------|
|            |                    | AM Peak                  |           | PM Peak   |           |                     | AM Peak                    |           | PM Peak   |           |
|            | No. of Units       | AM Arrive                | AM Depart | PM Arrive | PM Depart |                     | AM Arrive                  | AM Depart | PM Arrive | PM Depart |
| Apartments | 265                | 0.093                    | 0.51      | 0.371     | 0.173     | 35%                 | 9                          | 48        | 35        | 16        |
| Houses     | 19                 | 0.093                    | 0.51      | 0.371     | 0.173     | 35%                 | 1                          | 3         | 2         | 1         |
| Total      |                    |                          |           |           |           |                     | 9                          | 51        | 37        | 17        |

As the above figures in Table 5-2 predict an overall higher vehicular trip generation for the proposed development, these figures have been used in the Junction Analysis Section of this report.

## **6 Trip Assignment and Distribution**

There will be an increase in traffic generated by the proposed development. All traffic entering and exiting the proposed development will be obliged to obey all road traffic regulatory requirements.

The proposed development traffic was apportioned during the analysis in accordance with the directional flow of the surveyed traffic, refer to Figure 6-1.

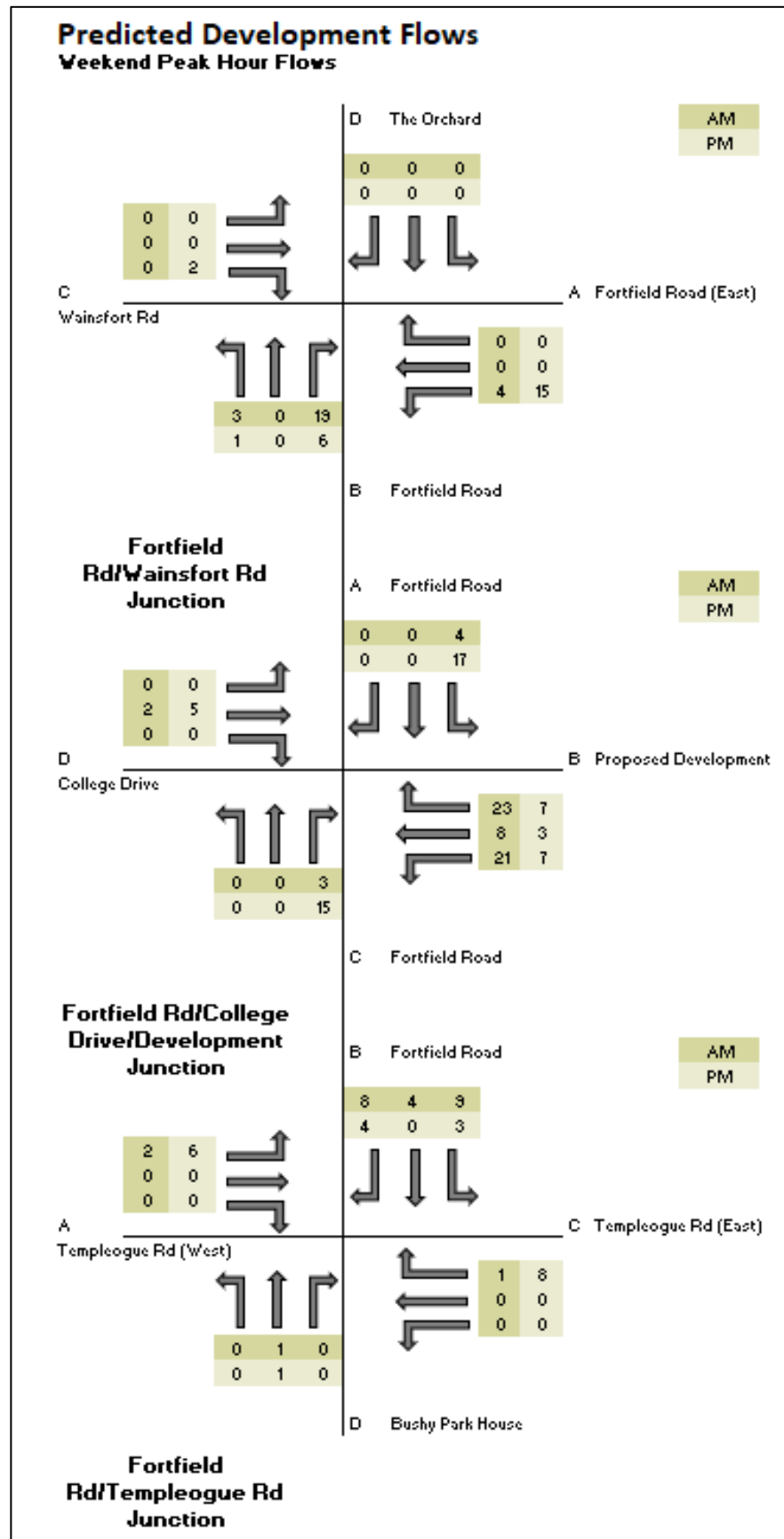


Figure 6-1: Distribution of Proposed Development Peak Hour Traffic onto Surrounding Junctions

## 7 Traffic Forecasting

### 7.1 Future Baseline Traffic Growth

In the absence of any specific local traffic growth information, it is assumed that baseline traffic will continue to grow at the levels recommended by the TII in the “Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections” publication (October 2021). The Project Appraisal Guidelines describe three levels of transport model functionality. The static model, which reflects traffic volumes on the basis of link flows, is best suited to the proposed development. Such models do not attempt any route assignment, and hence are applicable for networks where no change in traffic flows will result from a proposed scheme. This model recommends using growth rates in the “Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections” publication. The appropriate figures to use are those for the Dublin Metropolitan Area.

The year of opening of the project is assumed to be 2028. A 15-year analysis period for the scheme would give a design year of 2043. The central growth factors for light vehicles from the Project Appraisal Guidelines - Unit 5.5 ‘Link-Based Traffic Growth Forecasting’ publication are appropriate and are detailed below:

- TII Metropolitan Area (Dublin) Annual Traffic Growth Factor for 2016-2030 = 1.0162
- TII Metropolitan Area (Dublin) Annual Traffic Growth Factor for 2030-2040 = 1.0051
- TII Metropolitan Area (Dublin) Annual Traffic Growth Factor for 2040-2050 = 1.0044

Estimated future baseline traffic flows on the road network in the vicinity of the proposed development were calculated by applying these factors to the 2024 surveyed flows.

## 8 Assessment and Road Impact

The impact on the local external road network has been assessed in this TTA.

This involved examining the projected traffic flows on the local road network both 'with' and 'without' the proposed development in place. The morning peak period and the evening peak period have been examined in order to assess the busiest case in terms of local traffic on the road network and traffic generated by the proposed development.

### 8.1 Junction Analysis

Capacity analysis was carried out for the junctions listed below:

1. Fortfield Road / College Drive / Development Signal Controlled Junction
2. Fortfield Road / Templeogue / Bushy Park House Signal Controlled Junction
3. Fortfield Road / Wainsfort Road / The Orchard Signal Controlled Junction

The following development scenarios were analysed, using the results of the traffic survey, for the weekday AM and PM peak times:

1. Survey year: 2024
2. Opening year: 2028
3. Design year: opening year + 5 years: 2033
4. Design year: opening year + 15 years: 2043

Weekend AM and PM peak times were not assessed as the weekday AM and PM peak times traffic flows were found to be higher and as such the more conservative figures were analysed.

LinSig software was used for the analysis of the signalised junctions.

#### ***LinSig Analysis Note:***

The degree of saturation (DOS) is defined as the ratio of demand flow to the maximum flow which can be passed through the junction from a particular approach. If an approach is found to have a DOS greater than 100%, then it is "over saturated" and long queues will result. The practical capacity is the level of capacity above which the junction is assumed to work inefficiently (usually taken to be 90%).

Junction capacities shown below are only one theoretical interpretation of the phase/stage setup for the existing junctions. The results should be viewed more for a comparative assessment of with and without proposed development for the various scenarios.

### 8.1.1 Fortfield Road / College Drive / Development Junction Signal Controlled Junction

The LinSig output is summarised below and the full detailed output is included in greater detail in Appendix C.

**Table 8-1: Summary of LinSig Analysis Results for Fortfield Road / College Drive / Development Junction**

|                      | Without Development          | With Development             |
|----------------------|------------------------------|------------------------------|
| Peak Hour Flow       | Max Degree of Saturation (%) | Max Degree of Saturation (%) |
| AM 2028 Opening Year | -                            | 59.1                         |
| AM 2033 Design Year  | -                            | 62.1                         |
| AM 2043 Design Year  | -                            | 65.3                         |
| PM 2028 Opening Year | -                            | 38.5                         |
| PM 2033 Design Year  | -                            | 40.3                         |
| PM 2043 Design Year  | -                            | 42.4                         |

The above analysis predicts that by the Design Year 2043 the proposed junction would be operating within the design threshold with the full development in operation during both the AM and PM peak hours. The above results are based on a 105 second cycle time and calling pedestrians every cycle during peak times which is a conservative approach.

### 8.1.2 Fortfield Road / Templeogue / Bushy Park House Signal Controlled Junction

The LinSig output is summarised below and the full detailed output is included in greater detail in Appendix D. No stage/phase timings were available from DCC for the below junction. As such stage and phase timings were estimated from a site visit during peak hours. The below results are based on a 120 second cycle time and calling pedestrians every cycle during peak times, which was witnessed onsite.

Table 8-2: Summary of LinSig Analysis Results for Fortfield Road / Templeogue / Bushy Park House Junction

|                      | Without Development          | With Development             |
|----------------------|------------------------------|------------------------------|
| Peak Hour Flow       | Max Degree of Saturation (%) | Max Degree of Saturation (%) |
| AM 2024 Survey Year  | 85.9                         | -                            |
| AM 2028 Opening Year | 91.6                         | 93.8                         |
| AM 2033 Design Year  | 96.0                         | 98.2                         |
| AM 2043 Design Year  | 100.7                        | 103.1                        |
| PM 2024 Survey Year  | 73.2                         | -                            |
| PM 2028 Opening Year | 78.0                         | 78.9                         |
| PM 2033 Design Year  | 81.8                         | 82.6                         |
| PM 2043 Design Year  | 85.9                         | 87.1                         |

As shown above it is predicted that existing Fortfield Road/Templeogue/Bushy Park House Signal Controlled Junction will be operating slightly above capacity by the year 2028 in the AM Peak without the development. The Proposed Development increases the DOS by a maximum of 2.2% in the 2043 AM scenario.

The above analysis predicts that by the Design Year 2043 the proposed junction would be operating within the design threshold with the full development in operation during the PM peak hours. The Proposed Development increases the DOS by a maximum of 1.2% in the 2043 PM scenario.

While the junction will be operating beyond theoretical capacity by 2028 (AM only) both with and without the development, this level of service for a signalised junction is considered acceptable in an urban environment. There are always opportunities available for signalised junction improvements in the future on the ground by altering the cycle time to respond to actual traffic loading or by providing on-crossing detectors to improve pedestrian impact on the junction capacity.

### 8.1.3 Fortfield Road / Wainsfort Road / The Orchard Signal Controlled Junction

The LinSig output is summarised below and the full detailed output is included in greater detail in Appendix E. Phase and Stage information was provided by DCC for the below junction. The below results are based on a 90 second cycle time during peak times, which was witnessed onsite during the peak hours.

**Table 8-3: Summary of LinSig Analysis Results for Fortfield Road / Wainsfort Road / The Orchard Junction**

|                      | Without Development          | With Development             |
|----------------------|------------------------------|------------------------------|
| Peak Hour Flow       | Max Degree of Saturation (%) | Max Degree of Saturation (%) |
| AM 2024 Survey Year  | 49.5                         | -                            |
| AM 2028 Opening Year | 52.9                         | 54.3                         |
| AM 2033 Design Year  | 55.9                         | 57.0                         |
| AM 2043 Design Year  | 58.1                         | 59.8                         |
| PM 2024 Survey Year  | 60.1                         | -                            |
| PM 2028 Opening Year | 64.0                         | 65.1                         |
| PM 2033 Design Year  | 67.2                         | 68.8                         |
| PM 2043 Design Year  | 70.5                         | 71.6                         |

The above analysis predicts that by the Design Year 2043 the proposed junction would be operating well within the design threshold with the full development in operation during both the AM and PM peak hours.

#### 8.1.4 Analysis Summary

The results show that the proposed development signalised junction and the adjacent junctions can cater for the existing traffic growth as well as the full development traffic predicted.

As noted previously the worst case scenario is presented in the results above by adding the development traffic to the existing peak hour traffic selected from the traffic count survey and by calling pedestrians during every peak hour cycle analysis.

**Table 9-4: Summary Results all Surrounding Junctions**

| Junction                                                | 2043 Without Development<br>Max DOS (%) | 2043 With Development<br>Max DOS (%) |
|---------------------------------------------------------|-----------------------------------------|--------------------------------------|
| Fortfield Road / College Drive / Development Junction   | n/a                                     | 65.3%                                |
| Fortfield Road / Templeogue / Bushy Park House Junction | 100.7%                                  | 103.1%                               |
| Fortfield Road / Wainsfort Road / The Orchard Junction  | 70.5%                                   | 71.6%                                |

The Fortfield Road/Templeogue/Bushy Park House Signal Controlled Junction is predicted to be operating above practical capacity by 2028 (AM Peak) both with and without the Proposed Development. It is considered that in urban areas a certain level of congestion is to be expected during peak times. This level of service for a signalised junction is considered acceptable in an urban environment. There are always opportunities available for signalised junction improvements in the future on the ground by altering the cycle time to respond to actual traffic loading or by providing on-crossing detectors to improve pedestrian impact on the junction capacity.

From the above modelling results we conclude that the development will have little impact on the operational capacity of the surrounding network of roads and junctions.

## **9 Road Safety**

A Road Safety Audit for the development will be undertaken and supplied as a separate report.

## 10 Internal layout

The layout of the proposed development is detailed in the architect and landscape architect's drawings submitted as part of this application.

### 10.1 DMURS

The proposed development has been assessed for compliance with "Design Manual for Urban Roads and Streets" (DMURS) published by the Department of Transport, Tourism and Sport & the Department of Environment, Community and Local Government. A DMURS Compliance Statement is also included within the planning documentation for this proposed development and concludes that the proposed development is considered to be in compliance with the Design Manual for Urban Roads and Streets (DMURS) 2019.

### 10.2 Development Access

The development will be accessed by vehicles via a single proposed junction off Fortfield Road.

On entering the development via the north-western proposed signal controlled site entrance, attendees will be guided to the relevant parking facilities:

- Basement carpark
- In-curtilage parking associated with the 19 no. houses
- At-grade visitor and disabled car parking spaces

Circulation and access for refuse vehicles and fire tenders is illustrated in the supplied Autotrack drawings included in the planning submission. Please note that the fire tender circulation through the development consists of a one-way circulatory system entering via the development's northern access and permeating the development to ensure compliance with fire regulations with a turning facility accommodating turnaround and return along the fire tender route.

As outlined in Operational Waste Management Plan, the refuse vehicles will access the development via the signalised junction on Fortfield Road, travel to the end of the roadway, undertake a turning manoeuvre and depart the development whilst collecting the refuse from the private dwellings and apartment Waste Collection Areas (WCA's).

On entering the development via the site's only vehicular entrance, attendees will be guided to the relevant parking facilities adjacent to the development's principal amenity/concierge function:

- Drop-off / Set-down area for deliveries and taxis
- This facility will be for exclusive use by the proposed development and will be actively managed by the development management team to ensure that use by external users (e.g. school drop-off) is prohibited. Refer to Autotrack drawings for illustration of swept path manoeuvres.

Pedestrians will have access at street level to Fortfield Road providing convenient access to existing bus stops located on Fortfield Road and Templeogue Road. The site layout proposed will integrate the site into the existing surroundings providing pedestrian routes to serve the site and the surrounding area. The development allows for future pedestrian permeability/access around the lake area (and associated amenity value). See Architect and Landscape Architect drawings for proposed site layout.

Due to the limited extent of the road network, it is believed that traffic will be moving at a slow speed. Traffic management by means of road markings and signage will be supplied within the development where necessary.

The assessment concludes the proposed development is considered to be in compliance with DMURS. The proposals have also been assessed independently via a Quality Audit.

### **10.3 Visibility Splays**

The site layout has been developed to provide adequate turning provision and fire tender access. Forward visibility and visibility splays have been provided on the basis of the requirements of Sections 4.4.4 and 4.4.5 of the DMURS manual. Compliance with the requirements is set out on PUNCH drawing 222102-PUNCH-XX-XX-DR-C-0625.

### **10.4 Vehicle Manoeuvring**

Access to the buildings by a fire appliance can be provided. Delivery vehicles will be able to access and leave the site in forward gear with a turning area provided for in the design. Autotrack analysis has been undertaken to ensure there are no issues with swept paths and manoeuvrability of fire appliances, refuse vehicles, buses, and other heavy goods vehicles.

## 11 Parking

### 11.1 Car Parking

Car parking serving the subject development is provided within the on-site shared basement car park located below the three building blocks.

In accordance with the DCC Development Plan Requirements provision will be made for:

1. Disabled car parking (5% of spaces)
2. Motorcycle parking (4% of the number of car parking spaces)
3. A minimum of 50% of all car parking spaces shall be equipped with fully functional EV Charging Point(s). The remaining spaces shall be designed to facilitate the relevant infrastructure to accommodate future EV charging.
4. Cycle parking

The breakdown of the proposed 165 no. car parking spaces (including drop-off bays/spaces), in line with the above, is as follows:

#### Residential Car Parking

- 112 no. residential parking spaces (basement)
- 19 no. residential parking spaces (at-grade, in-curtilage)
- 10 no. Car Club parking spaces (at-grade)
- 7 no. Disabled parking spaces (at-grade)
- 9 no. Visitor parking spaces (at-grade)

#### Non-Residential Car Parking

- 4 no. Indoor Cultural/Art Space parking spaces (basement)
- 1 no. Creche Staff parking space (basement)
- 2 no. Creche drop-off spaces (at-grade)
- 1 no. Delivery/Service Vehicle Loading Bay (at-grade)

The following section outlines the proposed vehicular and cycle parking quantum associated with the new development designed to facilitate and encourage a positive modal shift at the development towards alternative sustainable modes of transport.

The general objectives are as follows:

1. Reduce and discourage the reliance on the use of private car travel.
1. Increase and facilitate the use of alternative sustainable forms of transport such as walking, cycling, or traveling by public transport to/from the development.
2. Develop an integrated and unified approach to traffic management for the site which will include public transport, private vehicles, cycle facilities and car sharing services.
3. Engage with Dublin City Council (DCC), the National Transport Authority (NTA), Irish Rail, Dublin Bus, Transport Infrastructure Ireland, Transdev, Bus Éireann and all other relevant stakeholders in a partnership model to promote an increased uptake in public transport.

It is an objective of this plan to limit the level of parking available on-site wherever possible in order to minimise and discourage dependency on private car travel. This will also continue to take into consideration the necessary demand to prevent overspill parking issues in nearby locations.

### 11.1.1 Sustainable Residential Development and Compact Settlements - Guidelines for Planning Authorities

The ‘Sustainable Residential Development and Compact Settlements - Guidelines for Planning Authorities’ (January 2024), Section 5.3.4 states the following:

*“The availability of car parking has a critical impact on travel choices for all journeys, including local trips. With ongoing investment in active travel and public transport across all urban areas and particularly in our cities and larger towns, the number of locations with access to everyday needs and employment within a short walk or cycle or via a regular public transport connection is increasing all the time. In areas where car-parking levels are reduced studies show that people are more likely to walk, cycle, or choose public transport for daily travel. In order to meet the targets set out in the National Sustainable Mobility Policy 2022 and in the Climate Action Plan 2023 for reduced private car travel it will be necessary to apply a graduated approach to the management of car parking within new residential development.*

*The approach should take account of proximity to urban centres and sustainable transport options, in order to promote more sustainable travel choices. Car parking ratios should be reduced at all urban locations, and should be minimised, substantially reduced or wholly eliminated at locations that have good access to urban services and to public transport.”*

In accordance with the definitions outlined in the ‘Sustainable Residential Development and Compact Settlements - Guidelines for Planning Authorities’ (specifically Table 3.8), the Fortfield LRD is located within an ‘**Accessible Location**’ given its proximity to a ‘High-Capacity Public Transport Node or Interchange’.

#### ***“High-Capacity Public Transport Node or Interchange***

*Lands within 1,000 metres (1km) walking distance of an existing or planned high-capacity urban public transport node or interchange, namely an interchange or node that includes DART, high frequency Commuter Rail, light rail or MetroLink services; or locations within 500 metres walking distance of an existing or planned BusConnects ‘Core Bus Corridor’ stop...”*

#### ***“Accessible Location***

*Lands within 500 metres (i.e. up to 5-6 minute walk) of existing or planned high frequency (i.e. 10 minute peak hour frequency) urban bus services.”*

As a result, the default position per specific planning policy requirements (SPPR) 3 of the Guidelines is that car-parking provision should be **substantially reduced**. Per the extract taken from SPPR 3 below:

*“(ii) In accessible locations, defined in Chapter 3 (Table 3.8) car- parking provision should be substantially reduced. The maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 1.5 no. spaces per dwelling.”*

The car parking proposals for the development comply with these requirements.

The distance from the development’s entrance on Fortfield to the planned BusConnects ‘Core Bus Corridor’ stop on Templeogue Road is <500m (approx. 490m) as illustrated by the travel distance measured along the Fortfield Road eastern footpath and pedestrian crossing point at the junction with Templeogue Road.



Figure 11-1: Travel Distance from Proposed Development Entrance to planned BusConnects 'Core Bus Corridor' Stop on Templeogue Road

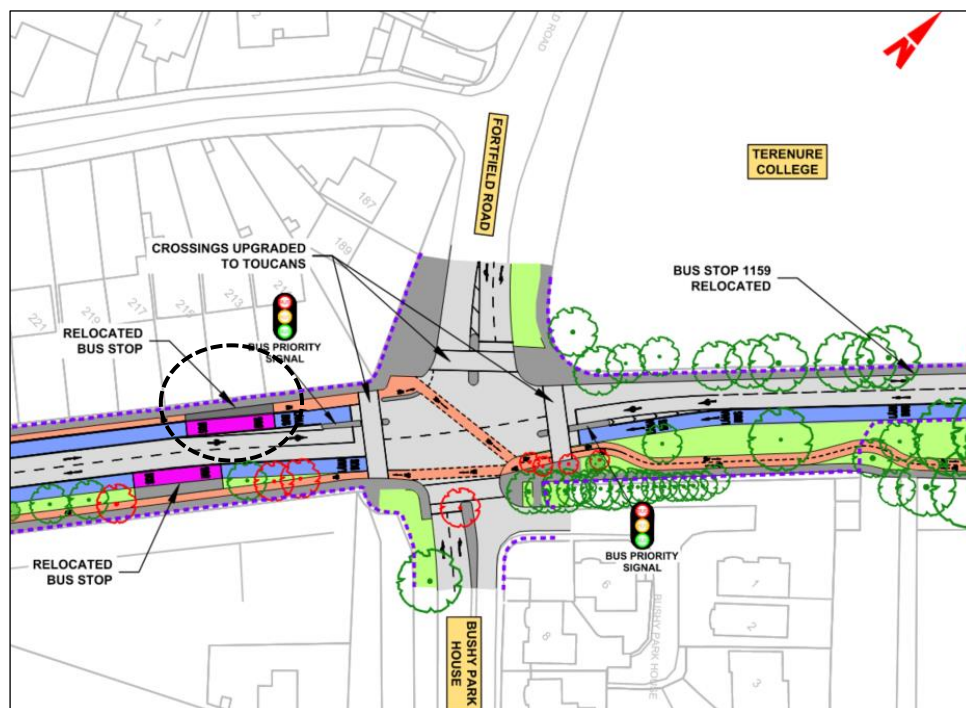


Figure 11-2: Planned BusConnects 'Core Bus Corridor' Stop on Templeogue Road (Extract from Map 7 of the Tallaght to Terenure Core Bus Corridor Preferred Route)

As a result, the default position per specific planning policy requirements (SPPR) 3 of the Guidelines is that car-parking provision should be **substantially reduced**.

### 11.1.2 Census 2020 Travel Patterns

Information on current travel patterns in the Terenure area is set out in Central Statistics Office 2022 Census data, specifically relating to the Small Area A267150005 modal split given the location of the site on the border of the SDCC and DCC boundaries. The modal splits given in the table below provides an accurate representation of the existing mode share split in the local area.

**Table 11-1: Travel Plan - Existing Modal Splits**

| Mode                        | Commuting Patterns<br>(Based on Small Area A267150005 Modal Split<br>from the 2022 Census Data) |
|-----------------------------|-------------------------------------------------------------------------------------------------|
| On foot                     | 22.36%                                                                                          |
| Bicycle                     | 8.7%                                                                                            |
| Bus, minibus or coach       | 8.7%                                                                                            |
| Train, DART or LUAS         | 0.62%                                                                                           |
| Motorcycle or scooter       | 1.24%                                                                                           |
| Motor car: Driver           | 33.54%                                                                                          |
| Motor car: Passenger        | 4.35%                                                                                           |
| Van                         | 0.62%                                                                                           |
| Other, incl. lorry          | 0.62%                                                                                           |
| Work mainly at or from home | 13.04%                                                                                          |
| Not stated                  | 6.21%                                                                                           |

Private vehicle use accounts for 39.13% of all trips to school or work at the Small Area level. Walking/cycling comprises 31.06% of trips respectively. It is noteworthy that public transport is also significant at around 9.32% respectively. Furthermore, 13.04% of the local area population work mainly at or from home.

These existing travel patterns are supportive of a shift towards promoting sustainable transport modes. The car parking proposals for this development reflect and support a sustainable approach to discourage reliance on private vehicle use and promote more sustainable transport modes.

## 11.2 Proposed Car Parking

Car parking serving the subject development is provided within the on-site shared basement car park located below the three building blocks.

The DCC Development Plan 2022-2028 (Appendix 5, Table 2) car parking standards are noted in Table 11-3 below:

**Table 11-2: DCC Development Plan (2022-2028) Car Parking Requirements**

| Land Use             | Units              | Car Parking Standards | Maximum Car Parking Standards |
|----------------------|--------------------|-----------------------|-------------------------------|
| Residential (Zone 2) | 284 <sup>(1)</sup> | 1.0 per dwelling      | 284                           |
| <b>Total</b>         | <b>284</b>         |                       | <b>284</b>                    |

<sup>(1)</sup> This 284 overall figure consists of 19 no. house units and 265 no. apartment units.

19 no. parking spaces are provided for the housing component in-curtilage.

Apartment car parking is provided predominantly at basement level. 112 no. car parking spaces will be provided at this location.

**Table 11-3: Summary of Basement Residential Car Parking Spaces**

| Level          | Residential Car Parking |
|----------------|-------------------------|
| Basement Level | 112 (standard spaces)   |
| <b>Total</b>   | <b>112</b>              |

It is proposed to provide 138 No. car parking spaces for the residential apartment component. This consists of 112 no. residential parking spaces in basement and 26 no. residential parking spaces at grade. 10 No. parking spaces dedicated for car club use only are proposed for inclusion in this car space provision. Please note that GoCar have advised that 1 No. GoCar vehicle can replace up to 15 private cars. Applying this rationale results in an 'equivalent provision' of  $128 + (10 \times 15) = 278$  no. private car spaces.

This level of residential apartment parking provision represents 105% of the maximum quantum allowed under the DCC Development Plan parking standards for the residential apartment component. The 'equivalent parking provision' also equates to 1.05 car parking spaces per residential unit (i.e.  $278/265$ ).

The DCC Development Plan 2022-2028 (Appendix 5, Table 2) car parking standards for non-residential use applicable to the proposed development are noted below:

**Table 11-4: DCC Development Plan (2022-2028) Non-Residential Car Parking Requirements**

| Category                       | Land Use                                                  | GFA      | Car Parking Standards | Maximum Car Parking Standards |
|--------------------------------|-----------------------------------------------------------|----------|-----------------------|-------------------------------|
| Civic, Community and Religious | Bank<br>Community Centre<br>Library<br>Public Institution | 1,200sqm | 1 per 275sqm GFA      | 4.36                          |

|              |                            |        |                  |             |
|--------------|----------------------------|--------|------------------|-------------|
| Education    | Creche/ Childcare Services | 100sqm | 1 per 100sqm GFA | 1           |
| <b>Total</b> |                            |        |                  | <b>5.36</b> |

It is proposed to provide 1 No. car parking spaces for the creche staff within the basement parking facility. In addition, 2 no. creche drop-off parking spaces are provided at the creche location.

It is proposed to provide 4 no. car parking spaces for the Cultural/Arts Space within the basement parking facility.

### 11.2.1 Electric Vehicle Charging Points

In accordance with Appendix 5, Section 5.0, the development will be futureproofed to include EV charging points and infrastructure. A minimum of 50% of all car parking spaces shall be equipped with fully functional EV Charging Point(s). The remaining spaces shall be designed to facilitate the relevant infrastructure to accommodate future EV charging.

EV charging infrastructure will be provided for 100% of parking spaces allocated to dwellings (19 no. EV spaces) and car share (10 no. EV spaces) and for 50% of all spaces serving apartment units (69 no. EV spaces). 100% of spaces proposed will be future proofed for electrical charging.

### 11.2.2 Designated Disabled/Accessible Car Parking

In accordance with the DCC Development Plan (2022-2028), Appendix 5, Section 4.2 requirements requesting provision for accessible parking “At least 5% of the total number of spaces” be designated for Disabled/Accessible Car Parking.

7 no. parking spaces at ground level (i.e. 5% of the total number of spaces) will be designated disabled user car-parking spaces. The disabled spaces are to be demarcated with yellow lines, a protected hatched area and appropriate road markings to identify these spaces. The proposed location of the disabled parking spaces will be in close proximity to the building entrances.

### 11.2.3 Motorcycle Parking Provision

The DCC Development Plan requires developments to provide motorcycle parking spaces at a rate of 4% of the number of car parking spaces provided.

Motorcycle parking spaces are provided at basement level. 14 no. motorcycle parking spaces will be provided.

### 11.3 Cycle Parking

Cycling is to be significantly encouraged as part of the development. Cycle parking is provided externally at ground level and distributed throughout the development extents. A total of 611 no. residential cycle parking spaces will be provided for the apartment units. This figure excludes the non-residential cycle parking component.

Please note that cycle parking facilities for the house units will be provided in-curtilage.

Please see table below for summary of the cycle parking quantum as defined by requirements outlined in the DCC Development Plan 2022-2028, Appendix 5, Section 3.1, Table 1:

**Table 11-5: DCC Development Plan Parking Standards**

| Development Type | Units      | Long Term Cycle Parking Requirement | Short Term Cycle Parking Requirement | Minimum Long Term Cycle Parking | Minimum Short Term Cycle Parking |
|------------------|------------|-------------------------------------|--------------------------------------|---------------------------------|----------------------------------|
| Apartment        | 265        | 1 space per bedroom                 | 1 per 2 Apartments                   | 412                             | 133                              |
| <b>Total</b>     | <b>265</b> |                                     |                                      | <b>412</b>                      | <b>133</b>                       |

**Table 11-6: Individual Block Requirements in accordance with the 'DCC Development Plan 2022-2028'**

| Blocks       | Long Term Cycle Parking | Short Term Cycle Parking |
|--------------|-------------------------|--------------------------|
| A            | 93                      | 31                       |
| B            | 105                     | 33                       |
| C            | 117                     | 37                       |
| D            | 97                      | 32                       |
| <b>Total</b> | <b>412</b>              | <b>133</b>               |

For the proposed Fortfield Road development, we are proposing cycle parking numbers as follows:

**Table 11-7: Proposed Cycle Parking Quantum for the Fortfield Road Development**

| Blocks       | Long Term Cycle Parking        | Short Term Cycle Parking      |
|--------------|--------------------------------|-------------------------------|
| A            | 114 (incl. 7 no. non-standard) | 34 (incl. 2 no. non-standard) |
| B            | 120 (incl. 6 no. non-standard) | 38 (incl. 2 no. non-standard) |
| C            | 133 (incl. 7 no. non-standard) | 40 (incl. 2 no. non-standard) |
| D            | 98 (incl. 5 no. non-standard)  | 34 (incl. 2 no. non-standard) |
| <b>TOTAL</b> | <b>465</b>                     | <b>146</b>                    |

The cycle parking facilities and their utilisation will be monitored to determine actual vs forecast demands and amendments to the cycle parking arrangements will be actioned as required as part of the on-going mobility management strategy for the development.

Table 11-8: DCC Development Plan Non-Residential Cycle Parking Standards

| Category                             | Land Use                                                  | Long Term                                              | Short Stay/Visitor                                                                        |
|--------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Civic,<br>Community and<br>Religious | Bank<br>Community Centre<br>Library<br>Public Institution | Rate = 1 per 5 staff<br>15 no. staff<br>3no. Long Term | Rate = 1 per 100sqm GFA<br>1,200sqm<br>12no. Short Stay                                   |
| Education                            | Creche/ Childcare Services                                | Rate = 1 per 5 staff<br>5 no. staff<br>1no. Long Term  | Rate = 1 per 10 children<br>17 no. children based on<br>6sqm per child<br>2no. Short Stay |
| <b>Total</b>                         |                                                           | <b>4</b>                                               | <b>14</b>                                                                                 |

It is proposed to provide 1 No. Long Term cycle parking space for the creche staff and 4 No. Short Term cycle parking spaces (including 2 No. non-standard spaces) adjacent to the creche.

It is proposed to provide 4 No. Long Term cycle parking space for the creche staff and 12 No. Short Term cycle parking spaces (including 1 No. non-standard spaces) adjacent to the Cultural/Arts Space.

## 11.4 Parking Summary

The proposed vehicular and cycle parking quantum associated with the new development is designed to facilitate and encourage a positive modal shift at the development towards alternative sustainable modes of transport.

In accordance with the ‘Sustainable Urban Housing: Design Standards for New Apartments’ (July 2023) and the ‘Sustainable Residential Development and Compact Settlements - Guidelines for Planning Authorities’ (January 2024), a reduced provision of private vehicle car parking is proposed for the Fortfield Road Development. This is consistent with National Policy and applicable to the development given the context of proposals, i.e. *“In larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances”, “Sites within easy walking distance (i.e. up to 5 minutes or 400-500m) to/from high frequency (i.e. min 10 minute peak hour frequency) urban bus services.”.*

The reduced car parking provision is justified on the basis of existing modal split patterns in the area, the availability of public transport (as detailed in the Residential Travel Plan), the provision of car sharing facilities and a generous provision of cycle parking facilities as outlined in detail above.

## 12 Summary and Conclusion

- 1 The development will comprise a Large-Scale Residential Development (LRD) on a site at Fortfield Road, Terenure of 284 no. units delivering 19 no. houses and 265 no. apartments made up of studios; 1 beds; 2 beds; 3 beds; and 4 beds. The development will also provide community, cultural and arts space and a creche. Communal internal space for residents will also be delivered. Provision of car, cycle and motorbike parking will be provided throughout the development, including at basement and surface level. Vehicular/pedestrian/cyclist access from Fortfield Road. Proposed upgrade works to the surrounding road network is also included. All associated site development works, open space, services provision, ESB substations, plant areas, waste management areas, landscaping (both public and communal) and boundary treatments.
- 2 For the purposes of our assessment, the TRICS database and statistics from the 2022 Census were consulted to provide an equivalent trip rate for the proposed development site. Refer to Section 5 for further detail.
- 3 It is proposed to access the proposed development via Fortfield Road. Capacity analysis was carried out on the following junctions:
  - i. Fortfield Road / College Drive / Proposed Development Junction
  - ii. Fortfield Road / Templeogue Junction
  - iii. Fortfield Road / Wainsfort Road Junction

The analysis shows that there is capacity for the proposed development traffic to utilise the proposed upgraded development junction, and the Fortfield Road/Wainsfort Road Junction up to the Design Year 2043. The Fortfield Road / Templeogue Junction was found to be above the practical capacity without the development in place in the 2028 Do Nothing scenario (AM Peak only) and made slightly worse with the proposed development in the 2028 Design Year, but this is considered acceptable/expected in an urban area.

- 4 Parking spaces for the proposed development have been provided to comply with the maximum permissible requirements set out in the Dublin City Council Development Plan 2022-2028 and 'Sustainable Residential Development and Compact Settlements - Guidelines for Planning Authorities' (January 2024).
- 5 Secure cycle parking facilities have been provided within the development and exceed the requirements set out in the Dublin City Council Development Plan.

## **Appendix A      Traffic Surveys**







[illegible]







| D => A |     |     |      |     |      |      |     |     |       | D => B |     |     |      |     |      |      |     |     |      | D => C |     |     |      |     |      |      |     |     |     | D => D |     |     |      |     |      |      |     |     |     |   |
|--------|-----|-----|------|-----|------|------|-----|-----|-------|--------|-----|-----|------|-----|------|------|-----|-----|------|--------|-----|-----|------|-----|------|------|-----|-----|-----|--------|-----|-----|------|-----|------|------|-----|-----|-----|---|
| P/C    | M/C | CAR | TAXI | LGV | OGV1 | OGV2 | PSV | TOT | PCU   | P/C    | M/C | CAR | TAXI | LGV | OGV1 | OGV2 | PSV | TOT | PCU  | P/C    | M/C | CAR | TAXI | LGV | OGV1 | OGV2 | PSV | TOT | PCU | P/C    | M/C | CAR | TAXI | LGV | OGV1 | OGV2 | PSV | TOT | PCU |   |
| 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0     | 0      | 0   | 0   | 1    | 0   | 0    | 0    | 0   | 0   | 1    | 1      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0     | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0      | 0   | 0   | 1    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 0   | 1     | 1      | 0   | 0   | 0    | 1   | 0    | 0    | 0   | 0   | 0    | 1      | 1   | 0   | 0    | 2   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 2   | 1,2   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0      | 0   | 0   | 0    | 4   | 1    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0 |
| 1      | 0   | 2   | 2    | 0   | 0    | 0    | 0   | 3   | 2,2   | 0      | 0   | 0   | 1    | 1   | 0    | 0    | 0   | 0   | 2    | 2      | 0   | 0   | 4    | 1   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   | 1     | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 1    | 1      | 0   | 0   | 3    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 3   | 0    | 0   | 0    | 0    | 0   | 3   | 3     | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0      | 0   | 1   | 0    | 0   | 1    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 7   | 0    | 0   | 0    | 0    | 0   | 7   | 7     | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0      | 0   | 6   | 0    | 6   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 4   | 0    | 0   | 0    | 0    | 0   | 4   | 4     | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0      | 0   | 2   | 2    | 0   | 1    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 15  | 0    | 0   | 0    | 0    | 0   | 15  | 15    | 0      | 0   | 0   | 1    | 0   | 0    | 0    | 0   | 0   | 0    | 1      | 1   | 0   | 0    | 12  | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0 |
| 0      | 0   | 6   | 6    | 0   | 0    | 0    | 0   | 6   | 6     | 1      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 3    | 3      | 0   | 6   | 6    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 10  | 0    | 1   | 0    | 0    | 0   | 11  | 11    | 0      | 0   | 0   | 3    | 0   | 0    | 0    | 0   | 0   | 3    | 3      | 0   | 6   | 6    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 7   | 0    | 0   | 0    | 0    | 0   | 7   | 7     | 0      | 0   | 0   | 3    | 0   | 0    | 0    | 0   | 0   | 3    | 3      | 0   | 0   | 18   | 0   | 3    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0 |
| 0      | 0   | 31  | 0    | 0   | 0    | 0    | 0   | 31  | 31    | 0      | 0   | 3   | 0    | 1   | 0    | 0    | 0   | 0   | 4    | 4      | 0   | 28  | 0    | 2   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 54  | 0    | 1   | 0    | 0    | 0   | 55  | 55    | 1      | 0   | 9   | 0    | 1   | 0    | 0    | 0   | 0   | 11   | 10,2   | 0   | 58  | 0    | 55  | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 25  | 0    | 0   | 0    | 0    | 0   | 26  | 25,2  | 0      | 0   | 3   | 0    | 0   | 0    | 0    | 0   | 3   | 3    | 0      | 2   | 0   | 18   | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 31  | 0    | 0   | 0    | 0    | 0   | 32  | 31,4  | 0      | 0   | 3   | 0    | 0   | 0    | 0    | 0   | 4   | 4    | 0      | 2   | 0   | 20   | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 2      | 0   | 19  | 0    | 2   | 0    | 0    | 0   | 21  | 21,4  | 0      | 0   | 4   | 0    | 0   | 0    | 0    | 0   | 3   | 3    | 0      | 0   | 20  | 0    | 20  | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 40  | 1    | 1   | 1    | 0    | 0   | 44  | 43,7  | 1      | 0   | 12  | 0    | 0   | 0    | 0    | 0   | 13  | 12,2 | 0      | 0   | 28  | 0    | 1   | 1    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 5      | 0   | 115 | 1    | 3   | 1    | 0    | 0   | 125 | 121,5 | 1      | 0   | 22  | 0    | 0   | 0    | 0    | 0   | 23  | 22,2 | 2      | 0   | 86  | 0    | 1   | 1    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 24  | 0    | 0   | 0    | 0    | 0   | 24  | 24    | 0      | 0   | 10  | 0    | 0   | 0    | 0    | 0   | 10  | 10   | 0      | 0   | 32  | 2    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 26  | 0    | 1   | 0    | 0    | 0   | 28  | 27,2  | 0      | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2    | 0      | 1   | 25  | 0    | 3   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 30  | 0    | 3   | 0    | 0    | 0   | 33  | 33    | 0      | 0   | 4   | 0    | 0   | 0    | 0    | 0   | 5   | 5    | 1      | 0   | 31  | 0    | 1   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 25  | 0    | 0   | 0    | 0    | 0   | 25  | 25    | 0      | 0   | 5   | 0    | 0   | 0    | 0    | 0   | 4   | 4    | 1      | 0   | 41  | 0    | 1   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 105 | 0    | 4   | 0    | 0    | 0   | 110 | 109,2 | 0      | 0   | 21  | 0    | 0   | 0    | 0    | 0   | 21  | 21   | 2      | 1   | 129 | 2    | 4   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 3      | 0   | 32  | 0    | 0   | 0    | 0    | 0   | 35  | 32,6  | 0      | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2    | 1      | 0   | 46  | 0    | 1   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 42  | 0    | 1   | 0    | 0    | 0   | 43  | 43    | 0      | 0   | 1   | 15   | 0   | 0    | 0    | 0   | 16  | 15,4 | 0      | 0   | 35  | 0    | 1   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 28  | 1    | 0   | 0    | 0    | 0   | 29  | 29    | 0      | 0   | 6   | 0    | 0   | 0    | 0    | 0   | 6   | 6    | 0      | 0   | 34  | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 2      | 0   | 34  | 0    | 4   | 0    | 0    | 0   | 36  | 34,4  | 0      | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2    | 0      | 0   | 33  | 1    | 1   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 5      | 5   | 136 | 1    | 0   | 0    | 0    | 0   | 143 | 139   | 0      | 0   | 28  | 0    | 0   | 0    | 0    | 0   | 28  | 28,4 | 1      | 0   | 148 | 1    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 32  | 0    | 1   | 0    | 0    | 0   | 33  | 33    | 1      | 0   | 16  | 0    | 0   | 0    | 0    | 0   | 17  | 16,2 | 1      | 0   | 27  | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 27  | 0    | 2   | 0    | 0    | 0   | 30  | 29,2  | 0      | 0   | 1   | 10   | 0   | 0    | 0    | 0   | 11  | 10,4 | 1      | 0   | 40  | 0    | 3   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 16  | 0    | 1   | 0    | 0    | 0   | 17  | 17    | 0      | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   | 1    | 2      | 0   | 38  | 1    | 2   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 31  | 1    | 1   | 2    | 0    | 0   | 35  | 34,4  | 0      | 0   | 9   | 0    | 0   | 0    | 0    | 0   | 9   | 9    | 0      | 0   | 44  | 1    | 3   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 1   | 106 | 1    | 6   | 0    | 0    | 0   | 115 | 113,6 | 1      | 1   | 36  | 0    | 0   | 0    | 0    | 0   | 38  | 36,6 | 9      | 4   | 0   | 149  | 2   | 8    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 21  | 0    | 1   | 0    | 0    | 0   | 22  | 22    | 0      | 0   | 6   | 0    | 0   | 0    | 0    | 0   | 5   | 5    | 2      | 0   | 33  | 1    | 2   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 24  | 2    | 0   | 0    | 0    | 0   | 27  | 26,2  | 0      | 0   | 5   | 0    | 0   | 0    | 0    | 0   | 9   | 9    | 1      | 0   | 48  | 1    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |   |
| 0      | 0   | 25  | 0    | 1   | 0    | 0    | 0   | 26  | 26    | 0      | 0   | 5   | 0    | 0   | 0    | 0    | 0   | 5   | 5    | 0      | 0   | 37  | 1    | 1   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 18  | 2    | 1   | 0    | 0    | 0   | 21  | 21    | 0      | 0   | 3   | 0    | 0   | 0    | 0    | 0   | 3   | 3    | 1      | 0   | 21  | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 0   | 88  | 4    | 3   | 0    | 0    | 0   | 96  | 95,2  | 0      | 0   | 22  | 0    | 0   | 0    | 0    | 0   | 22  | 22   | 4      | 2   | 139 | 3    | 4   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 20  | 0    | 4   | 0    | 0    | 0   | 24  | 24    | 1      | 0   | 6   | 1    | 0   | 0    | 0    | 0   | 8   | 7,2  | 1      | 0   | 36  | 23   | 1   | 1    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 24  | 1    | 0   | 0    | 0    | 0   | 25  | 24    | 0      | 0   | 1   | 16   | 1   | 0    | 0    | 0   | 18  | 17,4 | 0      | 0   | 36  | 36   | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |   |
| 0      | 0   | 24  | 1    | 0   | 0    | 0    | 0   | 25  | 25    | 0      | 0   | 6   | 0    | 0   | 0    | 0    | 0   | 6   | 6    | 0      | 0   | 37  | 1    | 2   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 1   | 23  | 1    | 0   | 0    | 0    | 0   | 26  | 24,6  | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 1   | 1    | 0      | 0   | 40  | 0    | 2   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 1      | 1   | 90  | 3    | 4   | 0    | 0    | 0   | 99  | 97,6  | 1      | 1   | 29  | 2    | 0   | 0    | 0    | 0   | 33  | 31,6 | 1      | 0   | 136 | 2    | 5   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 27  | 0    | 0   | 0    | 0    | 0   | 27  | 27    | 0      | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2    | 0      | 0   | 36  | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |   |
| 0      | 1   | 21  | 0    | 0   | 0    | 0    | 0   | 22  | 21,4  | 0      | 0   | 12  | 0    | 0   | 0    | 0    | 0   | 12  | 12   | 0      | 0   | 30  | 1    | 0   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 47  | 3    | 1   | 0    | 0    | 0   | 51  | 51    | 0      | 0   | 13  | 0    | 0   | 0    | 0    | 0   | 13  | 13   | 1      | 0   | 40  | 2    | 1   | 0    | 0    | 0   | 0   | 0   | 0      | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |   |
| 0      | 0   | 24  | 0    | 2   | 0    | 0    | 0   | 27  | 2     |        |     |     |      |     |      |      |     |     |      |        |     |     |      |     |      |      |     |     |     |        |     |     |      |     |      |      |     |     |     |   |



























**1**



| B ==> A |     |     |      |     |      |      |     |     |       | B ==> B |     |     |      |     |      |      |     |     |     | B ==> C |     |     |      |     |      |      |     |     |      | B ==> D |     |     |      |     |      |      |     |     |     |
|---------|-----|-----|------|-----|------|------|-----|-----|-------|---------|-----|-----|------|-----|------|------|-----|-----|-----|---------|-----|-----|------|-----|------|------|-----|-----|------|---------|-----|-----|------|-----|------|------|-----|-----|-----|
| P/C     | M/C | CAR | TAXI | L6V | OGV1 | OGV2 | PSV | TOT | PCU   | P/C     | M/C | CAR | TAXI | L6V | OGV1 | OGV2 | PSV | TOT | PCU | P/C     | M/C | CAR | TAXI | L6V | OGV1 | OGV2 | PSV | TOT | PCU  | P/C     | M/C | CAR | TAXI | L6V | OGV1 | OGV2 | PSV | TOT | PCU |
| 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0     | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0     | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0     | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2     | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 1   | 0    | 1   | 0    | 0    | 0   | 2   | 2     | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 0   | 1    | 0   | 0    | 0    | 0   | 1   | 1     | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   | 1     | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 1   | 0    | 0    | 0   | 0   | 1    | 1       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 3   | 0    | 0   | 0    | 0    | 0   | 5   | 5     | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 2    | 0   | 2    | 0    | 2   | 0   | 4    | 4       | 0   | 1   | 1    | 0   | 1    | 0    | 0   | 2   | 2   |
| 0       | 0   | 4   | 0    | 0   | 0    | 0    | 0   | 1   | 5     | 6       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 6   | 0    | 1   | 0    | 0    | 0   | 7   | 7     | 7       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 7   | 0    | 0   | 0    | 0    | 0   | 7   | 7     | 7       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   |
| 0       | 0   | 10  | 0    | 1   | 1    | 0    | 0   | 12  | 12.5  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 1   | 0   | 1    | 0   | 0    | 0    | 0   | 2   | 1.2  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 0       | 0   | 27  | 0    | 2   | 1    | 0    | 1   | 31  | 32.5  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 1   | 0   | 1    | 0   | 0    | 0    | 0   | 2   | 1.2  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 1       | 0   | 16  | 1    | 2   | 0    | 0    | 0   | 21  | 21.2  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   | 1    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 2       | 0   | 10  | 1    | 0   | 0    | 0    | 0   | 13  | 11.4  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 3   | 0    | 0   | 0    | 0    | 0   | 3   | 3    | 0       | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   |     |
| 0       | 0   | 21  | 0    | 0   | 0    | 0    | 0   | 21  | 21    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 1   | 3    | 0   | 0    | 0    | 0   | 4   | 3.4  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 1       | 0   | 14  | 0    | 2   | 1    | 0    | 0   | 18  | 17.7  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 3   | 0    | 0   | 0    | 0    | 0   | 3   | 3    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 4       | 0   | 61  | 2    | 4   | 1    | 0    | 1   | 73  | 71.3  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 1   | 10   | 0   | 0    | 0    | 0   | 11  | 10.4 | 0       | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   |     |
| 0       | 0   | 17  | 0    | 1   | 1    | 0    | 1   | 20  | 21.5  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 1   | 0   | 3    | 0   | 0    | 0    | 0   | 4   | 3.2  | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 4       | 0   | 10  | 1    | 1   | 0    | 0    | 0   | 16  | 12.8  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 1   | 2   | 5    | 0   | 0    | 0    | 0   | 8   | 6    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 2       | 1   | 17  | 0    | 1   | 1    | 0    | 0   | 22  | 20.3  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 7   | 0    | 1   | 0    | 0    | 0   | 8   | 8    | 0       | 0   | 0   | 0    | 0   | 1    | 0    | 0   | 1.5 |     |
| 0       | 0   | 24  | 0    | 1   | 0    | 0    | 0   | 25  | 25    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 2    | 0   | 0    | 0    | 0   | 2   | 2    | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 6       | 1   | 68  | 1    | 4   | 2    | 0    | 1   | 83  | 79.6  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 2   | 2   | 17   | 0   | 1    | 0    | 0   | 22  | 19.2 | 0       | 0   | 2   | 0    | 0   | 1    | 0    | 0   | 3   |     |
| 0       | 1   | 18  | 0    | 1   | 0    | 0    | 1   | 21  | 21.4  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 3    | 0   | 1    | 0    | 0   | 4   | 4    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 0       | 0   | 28  | 0    | 2   | 0    | 0    | 0   | 30  | 30    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 8   | 0    | 0   | 0    | 0    | 0   | 8   | 8    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 1       | 0   | 20  | 0    | 1   | 1    | 0    | 0   | 24  | 23.9  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 8    | 0   | 1    | 0    | 0   | 6   | 5.2  | 0       | 0   | 1   | 1    | 0   | 0    | 0    | 0   | 0   |     |
| 0       | 0   | 21  | 1    | 1   | 0    | 0    | 0   | 23  | 23    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 4    | 0   | 0    | 0    | 0   | 6   | 4    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 1       | 1   | 104 | 1    | 4   | 0    | 0    | 2   | 113 | 113.6 | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 1   | 0   | 19   | 0   | 2    | 0    | 0   | 22  | 21.2 | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 2       | 0   | 27  | 1    | 0   | 0    | 0    | 1   | 31  | 30.4  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 2   | 9    | 0   | 0    | 0    | 0   | 11  | 9.8  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 0       | 0   | 22  | 0    | 1   | 0    | 0    | 0   | 23  | 23    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 10   | 0   | 0    | 0    | 0   | 10  | 10   | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 3       | 0   | 28  | 0    | 1   | 1    | 0    | 1   | 34  | 33.1  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 3   | 0   | 10   | 0   | 0    | 0    | 0   | 13  | 10.6 | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 2       | 0   | 20  | 0    | 1   | 1    | 0    | 0   | 24  | 23.9  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 1   | 0   | 6    | 0   | 0    | 0    | 0   | 7   | 6.2  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 7       | 0   | 97  | 1    | 3   | 2    | 0    | 2   | 112 | 109.4 | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 4   | 2   | 35   | 0   | 0    | 0    | 0   | 41  | 36.6 | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 0       | 0   | 20  | 2    | 2   | 0    | 0    | 1   | 25  | 26    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 0   | 11   | 0   | 1    | 1    | 0   | 13  | 13.5 | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 0       | 0   | 23  | 0    | 1   | 0    | 0    | 0   | 24  | 24    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 6   | 0    | 0   | 0    | 0    | 0   | 6   | 6    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 2       | 1   | 9   | 2    | 1   | 0    | 0    | 1   | 16  | 14.8  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 8   | 0    | 0   | 0    | 0    | 0   | 8   | 8    | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 0       | 0   | 21  | 0    | 1   | 0    | 0    | 0   | 22  | 22    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 1   | 0   | 3    | 0   | 1    | 0    | 0   | 5   | 4.2  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 2       | 1   | 73  | 4    | 5   | 0    | 0    | 2   | 87  | 86.8  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 1   | 0   | 28   | 0   | 2    | 1    | 0   | 32  | 31.7 | 0       | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   |     |
| 0       | 0   | 23  | 0    | 1   | 0    | 0    | 0   | 25  | 26    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 5   | 0    | 0   | 0    | 0    | 0   | 5   | 5    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 0       | 1   | 18  | 0    | 1   | 0    | 0    | 0   | 20  | 19.4  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2    | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 1       | 1   | 21  | 2    | 2   | 0    | 0    | 1   | 28  | 27.6  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2    | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 0       | 1   | 26  | 1    | 1   | 0    | 0    | 0   | 29  | 28.4  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 2   | 2    | 0   | 0    | 0    | 0   | 4   | 2.8  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   |     |
| 1       | 3   | 88  | 3    | 5   | 0    | 0    | 2   | 102 | 101.4 | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 2   | 11   | 0   | 0    | 0    | 0   | 13  | 11.8 | 0       | 0   | 1   | 0    | 0   | 0    | 0    | 0   | 1   |     |
| 2       | 1   | 24  | 1    | 1   | 0    | 0    | 1   | 30  | 28.8  | 0       | 0   | 0   | 0    | 0   | 0    | 0    | 0   | 0   | 0   | 0       | 0   | 2   | 0    | 0   | 0    | 0    | 0   | 2   | 2    | 0       | 0   | 1   | 0    | 0   |      |      |     |     |     |







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## **Appendix B      TRICS Data**

Calculation Reference: AUDIT-434201-240130-0157

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : C - FLATS PRIVATELY OWNED  
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

|    |                           |        |
|----|---------------------------|--------|
| 01 | GREATER LONDON            |        |
|    | BE BEXLEY                 | 2 days |
|    | BM BROMLEY                | 1 days |
|    | BN BARNET                 | 1 days |
|    | BT BRENT                  | 2 days |
|    | EN ENFIELD                | 1 days |
|    | HG HARINGEY               | 1 days |
|    | HM HAMMERSMITH AND FULHAM | 1 days |
|    | HO HOUNSLOW               | 3 days |
|    | HV HAVERING               | 1 days |
|    | IS ISLINGTON              | 3 days |
|    | KI KINGSTON               | 1 days |
|    | RD RICHMOND               | 1 days |
|    | SK SOUTHWARK              | 2 days |
|    | TH TOWER HAMLETS          | 1 days |
|    | WF WALTHAM FOREST         | 6 days |
| 02 | SOUTH EAST                |        |
|    | CT CENTRAL BEDFORDSHIRE   | 3 days |
|    | HF HERTFORDSHIRE          | 4 days |
|    | PO PORTSMOUTH             | 1 days |
|    | WS WEST SUSSEX            | 1 days |
| 04 | EAST ANGLIA               |        |
|    | CA CAMBRIDGESHIRE         | 1 days |
|    | NF NORFOLK                | 1 days |
|    | SF SUFFOLK                | 1 days |
| 05 | EAST MIDLANDS             |        |
|    | DY DERBY                  | 1 days |
|    | NG NOTTINGHAM             | 2 days |
| 08 | NORTH WEST                |        |
|    | MS MERSEYSIDE             | 3 days |
| 09 | NORTH                     |        |
|    | TW TYNE & WEAR            | 1 days |
| 10 | WALES                     |        |
|    | CO CONWY                  | 1 days |
| 11 | SCOTLAND                  |        |
|    | EB CITY OF EDINBURGH      | 1 days |
|    | HI HIGHLAND               | 1 days |
| 12 | CONNAUGHT                 |        |
|    | MA MAYO                   | 1 days |
| 14 | LEINSTER                  |        |
|    | LU LOUTH                  | 1 days |
| 15 | GREATER DUBLIN            |        |
|    | DL DUBLIN                 | 1 days |

*This section displays the number of survey days per TRICS® sub-region in the selected set*

Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: No of Dwellings  
 Actual Range: 6 to 493 (units: )  
 Range Selected by User: 6 to 493 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 14/06/23

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

|           |         |
|-----------|---------|
| Monday    | 8 days  |
| Tuesday   | 18 days |
| Wednesday | 15 days |
| Thursday  | 6 days  |
| Friday    | 5 days  |

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

|                       |         |
|-----------------------|---------|
| Manual count          | 52 days |
| Directional ATC Count | 0 days  |

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

|                                          |    |
|------------------------------------------|----|
| Town Centre                              | 2  |
| Edge of Town Centre                      | 21 |
| Suburban Area (PPS6 Out of Centre)       | 15 |
| Edge of Town                             | 5  |
| Neighbourhood Centre (PPS6 Local Centre) | 9  |

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

|                  |    |
|------------------|----|
| Industrial Zone  | 1  |
| Development Zone | 8  |
| Residential Zone | 28 |
| Built-Up Zone    | 8  |
| No Sub Category  | 7  |

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Inclusion of Servicing Vehicles Counts:

|                             |                    |
|-----------------------------|--------------------|
| Servicing vehicles Included | 45 days - Selected |
| Servicing vehicles Excluded | 13 days - Selected |

Secondary Filtering selection:

Use Class:

|    |         |
|----|---------|
| C3 | 52 days |
|----|---------|

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

|                   |         |
|-------------------|---------|
| 1,001 to 5,000    | 3 days  |
| 5,001 to 10,000   | 2 days  |
| 10,001 to 15,000  | 2 days  |
| 15,001 to 20,000  | 1 days  |
| 20,001 to 25,000  | 11 days |
| 25,001 to 50,000  | 24 days |
| 50,001 to 100,000 | 5 days  |
| 100,001 or More   | 4 days  |

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

|                    |         |
|--------------------|---------|
| 5,001 to 25,000    | 1 days  |
| 25,001 to 50,000   | 1 days  |
| 50,001 to 75,000   | 4 days  |
| 125,001 to 250,000 | 12 days |
| 250,001 to 500,000 | 7 days  |
| 500,001 or More    | 27 days |

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

|             |         |
|-------------|---------|
| 0.5 or Less | 5 days  |
| 0.6 to 1.0  | 33 days |
| 1.1 to 1.5  | 13 days |
| 1.6 to 2.0  | 1 days  |

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

|     |         |
|-----|---------|
| Yes | 15 days |
| No  | 37 days |

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

|                     |         |
|---------------------|---------|
| No PTAL Present     | 26 days |
| 1a (Low) Very poor  | 1 days  |
| 1b Very poor        | 2 days  |
| 2 Poor              | 5 days  |
| 3 Moderate          | 5 days  |
| 4 Good              | 3 days  |
| 5 Very Good         | 4 days  |
| 6a Excellent        | 4 days  |
| 6b (High) Excellent | 2 days  |

*This data displays the number of selected surveys with PTAL Ratings.*

|                       |     |                                                                                                    |
|-----------------------|-----|----------------------------------------------------------------------------------------------------|
| Covid-19 Restrictions | Yes | At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions |
|-----------------------|-----|----------------------------------------------------------------------------------------------------|

LIST OF SITES relevant to selection parameters

|   |                                                                                        |                 |          |                     |
|---|----------------------------------------------------------------------------------------|-----------------|----------|---------------------|
| 1 | BE-03-C-01<br>CROOK LOG<br>BEXLEYHEATH                                                 | BLOCKS OF FLATS |          | BEXLEY              |
|   | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings:                      |                 | 79       |                     |
|   | Survey date: WEDNESDAY                                                                 |                 | 19/09/18 | Survey Type: MANUAL |
| 2 | BE-03-C-02<br>CLYDESDALE WAY<br>BELVEDERE                                              | BLOCKS OF FLATS |          | BEXLEY              |
|   | Edge of Town<br>Industrial Zone<br>Total No of Dwellings:                              |                 | 402      |                     |
|   | Survey date: WEDNESDAY                                                                 |                 | 19/09/18 | Survey Type: MANUAL |
| 3 | BM-03-C-01<br>RINGER'S ROAD<br>BROMLEY                                                 | BLOCKS OF FLATS |          | BROMLEY             |
|   | Town Centre<br>Built-Up Zone<br>Total No of Dwellings:                                 |                 | 160      |                     |
|   | Survey date: MONDAY                                                                    |                 | 12/11/18 | Survey Type: MANUAL |
| 4 | BN-03-C-01<br>VICTORIA ROAD<br>NEW BARNET                                              | FLATS IN HOUSES |          | BARNET              |
|   | Neighbourhood Centre (PPS6 Local Centre)<br>Residential Zone<br>Total No of Dwellings: |                 | 33       |                     |
|   | Survey date: THURSDAY                                                                  |                 | 09/06/22 | Survey Type: MANUAL |
| 5 | BT-03-C-01<br>LAKESIDE DRIVE<br>PARK ROYAL                                             | BLOCKS OF FLATS |          | BRENT               |
|   | Suburban Area (PPS6 Out of Centre)<br>Development Zone<br>Total No of Dwellings:       |                 | 170      |                     |
|   | Survey date: WEDNESDAY                                                                 |                 | 28/09/16 | Survey Type: MANUAL |
| 6 | BT-03-C-02<br>ENGINEERS WAY<br>WEMBLEY                                                 | BLOCKS OF FLATS |          | BRENT               |
|   | Suburban Area (PPS6 Out of Centre)<br>Development Zone<br>Total No of Dwellings:       |                 | 472      |                     |
|   | Survey date: WEDNESDAY                                                                 |                 | 30/11/16 | Survey Type: MANUAL |
| 7 | CA-03-C-03<br>CROMWELL ROAD<br>CAMBRIDGE                                               | BLOCKS OF FLATS |          | CAMBRIDGESHIRE      |
|   | Suburban Area (PPS6 Out of Centre)<br>No Sub Category<br>Total No of Dwellings:        |                 | 82       |                     |
|   | Survey date: MONDAY                                                                    |                 | 18/09/17 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                    |                 |                      |
|----|------------------------------------|-----------------|----------------------|
| 8  | CO-03-C-01                         | BLOCKS OF FLATS | CONWY                |
|    | MOSTYN BROADWAY                    |                 |                      |
|    | LLANDUDNO                          |                 |                      |
|    | Edge of Town Centre                |                 |                      |
|    | Built-Up Zone                      |                 |                      |
|    | Total No of Dwellings:             | 37              |                      |
|    | Survey date: MONDAY                | 26/03/18        | Survey Type: MANUAL  |
| 9  | CT-03-C-01                         | BLOCKS OF FLATS | CENTRAL BEDFORDSHIRE |
|    | WING ROAD                          |                 |                      |
|    | LEIGHTON BUZZARD                   |                 |                      |
|    | LINSLADE                           |                 |                      |
|    | Edge of Town Centre                |                 |                      |
|    | Residential Zone                   |                 |                      |
|    | Total No of Dwellings:             | 175             |                      |
|    | Survey date: TUESDAY               | 15/05/18        | Survey Type: MANUAL  |
| 10 | CT-03-C-02                         | BLOCKS OF FLATS | CENTRAL BEDFORDSHIRE |
|    | STANBRIDGE ROAD                    |                 |                      |
|    | LEIGHTON BUZZARD                   |                 |                      |
|    | Edge of Town Centre                |                 |                      |
|    | Residential Zone                   |                 |                      |
|    | Total No of Dwellings:             | 62              |                      |
|    | Survey date: TUESDAY               | 15/05/18        | Survey Type: MANUAL  |
| 11 | CT-03-C-03                         | BLOCKS OF FLATS | CENTRAL BEDFORDSHIRE |
|    | COURT DRIVE                        |                 |                      |
|    | DUNSTABLE                          |                 |                      |
|    | Edge of Town Centre                |                 |                      |
|    | No Sub Category                    |                 |                      |
|    | Total No of Dwellings:             | 146             |                      |
|    | Survey date: TUESDAY               | 15/05/18        | Survey Type: MANUAL  |
| 12 | DL-03-C-18                         | BLOCKS OF FLATS | DUBLIN               |
|    | HAROLD'S CROSS ROAD                |                 |                      |
|    | DUBLIN                             |                 |                      |
|    | Suburban Area (PPS6 Out of Centre) |                 |                      |
|    | Residential Zone                   |                 |                      |
|    | Total No of Dwellings:             | 102             |                      |
|    | Survey date: WEDNESDAY             | 19/05/21        | Survey Type: MANUAL  |
| 13 | DY-03-C-03                         | BLOCKS OF FLATS | DERBY                |
|    | CAESAR STREET                      |                 |                      |
|    | DERBY                              |                 |                      |
|    | Suburban Area (PPS6 Out of Centre) |                 |                      |
|    | Residential Zone                   |                 |                      |
|    | Total No of Dwellings:             | 30              |                      |
|    | Survey date: WEDNESDAY             | 25/09/19        | Survey Type: MANUAL  |
| 14 | EB-03-C-01                         | BLOCKS OF FLATS | CITY OF EDINBURGH    |
|    | MYRESIDE ROAD                      |                 |                      |
|    | EDINBURGH                          |                 |                      |
|    | CRAIGLOCKHART                      |                 |                      |
|    | Suburban Area (PPS6 Out of Centre) |                 |                      |
|    | Residential Zone                   |                 |                      |
|    | Total No of Dwellings:             | 32              |                      |
|    | Survey date: TUESDAY               | 26/05/15        | Survey Type: MANUAL  |

LIST OF SITES relevant to selection parameters (Cont.)

|    |            |                                          |          |                     |
|----|------------|------------------------------------------|----------|---------------------|
| 15 | EN-03-C-03 | BLOCKS OF FLATS                          |          | ENFIELD             |
|    |            | NORTH CIRCULAR ROAD                      |          |                     |
|    |            | PALMERS GREEN                            |          |                     |
|    |            | Suburban Area (PPS6 Out of Centre)       |          |                     |
|    |            | Residential Zone                         |          |                     |
|    |            | Total No of Dwellings:                   | 27       |                     |
|    |            | Survey date: WEDNESDAY                   | 08/11/17 | Survey Type: MANUAL |
| 16 | HF-03-C-01 | BLOCKS OF FLATS                          |          | HERTFORDSHIRE       |
|    |            | HAYLING ROAD                             |          |                     |
|    |            | WATFORD                                  |          |                     |
|    |            | SOUTH OXHEY                              |          |                     |
|    |            | Edge of Town                             |          |                     |
|    |            | Residential Zone                         |          |                     |
|    |            | Total No of Dwellings:                   | 22       |                     |
|    |            | Survey date: WEDNESDAY                   | 09/06/21 | Survey Type: MANUAL |
| 17 | HF-03-C-03 | BLOCK OF FLATS                           |          | HERTFORDSHIRE       |
|    |            | SHENLEY ROAD                             |          |                     |
|    |            | BOREHAMWOOD                              |          |                     |
|    |            | Edge of Town Centre                      |          |                     |
|    |            | Built-Up Zone                            |          |                     |
|    |            | Total No of Dwellings:                   | 91       |                     |
|    |            | Survey date: THURSDAY                    | 14/11/19 | Survey Type: MANUAL |
| 18 | HF-03-C-04 | BLOCKS OF FLATS                          |          | HERTFORDSHIRE       |
|    |            | OXHEY DRIVE                              |          |                     |
|    |            | WATFORD                                  |          |                     |
|    |            | SOUTH OXHEY                              |          |                     |
|    |            | Neighbourhood Centre (PPS6 Local Centre) |          |                     |
|    |            | Residential Zone                         |          |                     |
|    |            | Total No of Dwellings:                   | 84       |                     |
|    |            | Survey date: THURSDAY                    | 10/06/21 | Survey Type: MANUAL |
| 19 | HF-03-C-05 | BLOCKS OF FLATS                          |          | HERTFORDSHIRE       |
|    |            | FERNDOWN ROAD                            |          |                     |
|    |            | WATFORD                                  |          |                     |
|    |            | SOUTH OXHEY                              |          |                     |
|    |            | Edge of Town                             |          |                     |
|    |            | Residential Zone                         |          |                     |
|    |            | Total No of Dwellings:                   | 26       |                     |
|    |            | Survey date: MONDAY                      | 07/06/21 | Survey Type: MANUAL |
| 20 | HG-03-C-01 | BLOCKS OF FLATS                          |          | HARINGEY            |
|    |            | BREAM CLOSE                              |          |                     |
|    |            | TOTTENHAM HALE                           |          |                     |
|    |            | Neighbourhood Centre (PPS6 Local Centre) |          |                     |
|    |            | Residential Zone                         |          |                     |
|    |            | Total No of Dwellings:                   | 255      |                     |
|    |            | Survey date: TUESDAY                     | 18/06/19 | Survey Type: MANUAL |
| 21 | HI-03-C-02 | BLOCK OF FLATS                           |          | HIGHLAND            |
|    |            | KING STREET                              |          |                     |
|    |            | NAIRN                                    |          |                     |
|    |            | Edge of Town Centre                      |          |                     |
|    |            | Residential Zone                         |          |                     |
|    |            | Total No of Dwellings:                   | 16       |                     |
|    |            | Survey date: WEDNESDAY                   | 19/04/23 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                        |                 |          |                        |
|----|----------------------------------------------------------------------------------------|-----------------|----------|------------------------|
| 22 | HM-03-C-02<br>GLENTHORNE ROAD<br>HAMMERSMITH                                           | BLOCKS OF FLATS |          | HAMMERSMITH AND FULHAM |
|    | Town Centre<br>Built-Up Zone<br>Total No of Dwellings:                                 |                 | 194      |                        |
|    | Survey date: TUESDAY                                                                   |                 | 30/04/19 | Survey Type: MANUAL    |
| 23 | HO-03-C-03<br>COMMERCE ROAD<br>BRENTFORD                                               | BLOCKS OF FLATS |          | HOUNSLOW               |
|    | Edge of Town Centre<br>Development Zone<br>Total No of Dwellings:                      |                 | 150      |                        |
|    | Survey date: FRIDAY                                                                    |                 | 18/11/16 | Survey Type: MANUAL    |
| 24 | HO-03-C-04<br>LONDON ROAD<br>ISLEWORTH                                                 | BLOCKS OF FLATS |          | HOUNSLOW               |
|    | Neighbourhood Centre (PPS6 Local Centre)<br>Residential Zone<br>Total No of Dwellings: |                 | 203      |                        |
|    | Survey date: TUESDAY                                                                   |                 | 03/07/18 | Survey Type: MANUAL    |
| 25 | HO-03-C-05<br>PARK LANE<br>HOUNSLOW<br>CRANFORD                                        | BLOCK OF FLATS  |          | HOUNSLOW               |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                             |                 | 14       |                        |
|    | Survey date: FRIDAY                                                                    |                 | 06/03/20 | Survey Type: MANUAL    |
| 26 | HV-03-C-02<br>WATERLOO ROAD<br>ROMFORD                                                 | BLOCKS OF FLATS |          | HAVERING               |
|    | Suburban Area (PPS6 Out of Centre)<br>Built-Up Zone<br>Total No of Dwellings:          |                 | 493      |                        |
|    | Survey date: TUESDAY                                                                   |                 | 22/11/16 | Survey Type: MANUAL    |
| 27 | IS-03-C-05<br>LEVER STREET<br>FINSBURY                                                 | BLOCK OF FLATS  |          | ISLINGTON              |
|    | Edge of Town Centre<br>Built-Up Zone<br>Total No of Dwellings:                         |                 | 15       |                        |
|    | Survey date: WEDNESDAY                                                                 |                 | 29/06/16 | Survey Type: MANUAL    |
| 28 | IS-03-C-06<br>CALEDONIAN ROAD<br>HOLLOWAY                                              | BLOCK OF FLATS  |          | ISLINGTON              |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings:                      |                 | 14       |                        |
|    | Survey date: MONDAY                                                                    |                 | 27/06/16 | Survey Type: MANUAL    |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                                   |                 |                     |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------|
| 29 | IS-03-C-08<br>CITY ROAD<br>ISLINGTON                                                                                                              | BLOCK OF FLATS  | ISLINGTON           |
|    | Edge of Town Centre<br>Development Zone<br>Total No of Dwellings:                                                                                 | 190             |                     |
|    | Survey date: THURSDAY                                                                                                                             | 20/10/22        | Survey Type: MANUAL |
| 30 | KI-03-C-03<br>PORTSMOUTH ROAD<br>SURBITON                                                                                                         | BLOCK OF FLATS  | KINGSTON            |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings:                                                                                 | 20              |                     |
|    | Survey date: MONDAY                                                                                                                               | 11/07/16        | Survey Type: MANUAL |
| 31 | LU-03-C-04<br>RIVER COURT<br>DROGHEDA                                                                                                             | BLOCKS OF FLATS | LOUTH               |
|    | Neighbourhood Centre (PPS6 Local Centre)<br>Residential Zone<br>Total No of Dwellings:                                                            | 42              |                     |
|    | Survey date: WEDNESDAY                                                                                                                            | 22/09/21        | Survey Type: MANUAL |
| 32 | MA-03-C-01<br>KNOCK ROAD<br>CLAREMORRIS                                                                                                           | BLOCKS OF FLATS | MAYO                |
|    | Edge of Town Centre<br>No Sub Category<br>Total No of Dwellings:                                                                                  | 22              |                     |
|    | Survey date: TUESDAY                                                                                                                              | 14/09/21        | Survey Type: MANUAL |
| 33 | MS-03-C-02<br>SOUTH FERRY QUAY<br>LIVERPOOL<br>BRUNSWICK DOCK<br>Suburban Area (PPS6 Out of Centre)<br>Development Zone<br>Total No of Dwellings: | 184             |                     |
|    | Survey date: TUESDAY                                                                                                                              | 13/11/18        | Survey Type: MANUAL |
| 34 | MS-03-C-03<br>MARINERS WHARF<br>LIVERPOOL<br>QUEENS DOCK<br>Suburban Area (PPS6 Out of Centre)<br>Development Zone<br>Total No of Dwellings:      | 9               |                     |
|    | Survey date: TUESDAY                                                                                                                              | 13/11/18        | Survey Type: MANUAL |
| 35 | MS-03-C-04<br>HOY DRIVE<br>NEWTON-LE-WILLOWS<br>EARLESTOWN<br>Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings:                   | 24              |                     |
|    | Survey date: MONDAY                                                                                                                               | 12/04/21        | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                    |                           |                     |
|----|------------------------------------|---------------------------|---------------------|
| 36 | NF-03-C-02                         | MIXED FLATS & HOUSES      | NORFOLK             |
|    | HALL ROAD                          |                           |                     |
|    | NORWICH                            |                           |                     |
|    | LAKENHAM                           |                           |                     |
|    | Suburban Area (PPS6 Out of Centre) |                           |                     |
|    | Residential Zone                   |                           |                     |
|    | Total No of Dwellings:             | 82                        |                     |
|    | Survey date: MONDAY                | 18/11/19                  | Survey Type: MANUAL |
| 37 | NG-03-C-01                         | HOUSES (SPLIT INTO FLATS) | NOTTINGHAM          |
|    | LAWRENCE WAY                       |                           |                     |
|    | NOTTINGHAM                         |                           |                     |
|    | Suburban Area (PPS6 Out of Centre) |                           |                     |
|    | No Sub Category                    |                           |                     |
|    | Total No of Dwellings:             | 56                        |                     |
|    | Survey date: TUESDAY               | 08/11/16                  | Survey Type: MANUAL |
| 38 | NG-03-C-02                         | HOUSES (SPLIT INTO FLATS) | NOTTINGHAM          |
|    | CASTLE MARINA ROAD                 |                           |                     |
|    | NOTTINGHAM                         |                           |                     |
|    | Suburban Area (PPS6 Out of Centre) |                           |                     |
|    | No Sub Category                    |                           |                     |
|    | Total No of Dwellings:             | 135                       |                     |
|    | Survey date: WEDNESDAY             | 09/11/16                  | Survey Type: MANUAL |
| 39 | PO-03-C-01                         | BLOCKS OF FLATS           | PORTSMOUTH          |
|    | CROSS STREET                       |                           |                     |
|    | PORTSMOUTH                         |                           |                     |
|    | Edge of Town Centre                |                           |                     |
|    | Built-Up Zone                      |                           |                     |
|    | Total No of Dwellings:             | 90                        |                     |
|    | Survey date: TUESDAY               | 05/06/18                  | Survey Type: MANUAL |
| 40 | RD-03-C-07                         | BLOCKS OF FLATS           | RICHMOND            |
|    | BESSANT DRIVE                      |                           |                     |
|    | KEW                                |                           |                     |
|    | Suburban Area (PPS6 Out of Centre) |                           |                     |
|    | Residential Zone                   |                           |                     |
|    | Total No of Dwellings:             | 170                       |                     |
|    | Survey date: WEDNESDAY             | 14/06/23                  | Survey Type: MANUAL |
| 41 | SF-03-C-05                         | BLOCKS OF FLATS           | SUFFOLK             |
|    | FORE STREET                        |                           |                     |
|    | IPSWICH                            |                           |                     |
|    | IPSWICH WATERFRONT                 |                           |                     |
|    | Edge of Town Centre                |                           |                     |
|    | Development Zone                   |                           |                     |
|    | Total No of Dwellings:             | 69                        |                     |
|    | Survey date: WEDNESDAY             | 23/06/21                  | Survey Type: MANUAL |
| 42 | SK-03-C-02                         | BLOCK OF FLATS            | SOUTHWARK           |
|    | LAMB WALK                          |                           |                     |
|    | BERMONDSEY                         |                           |                     |
|    | Edge of Town Centre                |                           |                     |
|    | Built-Up Zone                      |                           |                     |
|    | Total No of Dwellings:             | 29                        |                     |
|    | Survey date: THURSDAY              | 23/04/15                  | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                        |                         |          |                     |
|----|----------------------------------------------------------------------------------------|-------------------------|----------|---------------------|
| 43 | SK-03-C-03<br>MARITIME STREET<br>SURREY QUAYS                                          | BLOCKS OF FLATS         |          | SOUTHWARK           |
|    | Neighbourhood Centre (PPS6 Local Centre)<br>Development Zone<br>Total No of Dwellings: |                         | 233      |                     |
|    | Survey date: THURSDAY                                                                  |                         | 14/11/19 | Survey Type: MANUAL |
| 44 | TH-03-C-04<br>LEVEN ROAD<br>POPLAR<br>ABERFELDY VILLAGE                                | BLOCK OF FLATS          |          | TOWER HAMLETS       |
|    | Neighbourhood Centre (PPS6 Local Centre)<br>No Sub Category<br>Total No of Dwellings:  |                         | 83       |                     |
|    | Survey date: FRIDAY                                                                    |                         | 21/06/19 | Survey Type: MANUAL |
| 45 | TW-03-C-01<br>CAULDWELL AVENUE<br>WHITLEY BAY<br>MONKESEATON                           | BLOCKS OF FLATS         |          | TYNE & WEAR         |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                             |                         | 45       |                     |
|    | Survey date: FRIDAY                                                                    |                         | 15/10/21 | Survey Type: MANUAL |
| 46 | WF-03-C-01<br>ERSKINE ROAD<br>WALTHAMSTOW                                              | BLOCKS OF FLATS         |          | WALTHAM FOREST      |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings:                      |                         | 97       |                     |
|    | Survey date: TUESDAY                                                                   |                         | 05/11/19 | Survey Type: MANUAL |
| 47 | WF-03-C-02<br>GROSVENOR ROAD<br>WANSTEAD                                               | BLOCKS OF FLATS         |          | WALTHAM FOREST      |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings:                      |                         | 28       |                     |
|    | Survey date: TUESDAY                                                                   |                         | 25/05/21 | Survey Type: MANUAL |
| 48 | WF-03-C-03<br>FOREST ROAD<br>WALTHAMSTOW                                               | FLATS & TERRACED HOUSES |          | WALTHAM FOREST      |
|    | Neighbourhood Centre (PPS6 Local Centre)<br>No Sub Category<br>Total No of Dwellings:  |                         | 22       |                     |
|    | Survey date: FRIDAY                                                                    |                         | 21/05/21 | Survey Type: MANUAL |
| 49 | WF-03-C-04<br>GROSVENOR ROAD<br>WANSTEAD                                               | BLOCKS OF FLATS         |          | WALTHAM FOREST      |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings:                      |                         | 42       |                     |
|    | Survey date: TUESDAY                                                                   |                         | 25/05/21 | Survey Type: MANUAL |
| 50 | WF-03-C-05<br>NEW WANSTEAD<br>WANSTEAD                                                 | BLOCK OF FLATS          |          | WALTHAM FOREST      |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings:                      |                         | 6        |                     |
|    | Survey date: TUESDAY                                                                   |                         | 25/05/21 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                          |                 |                     |
|----|------------------------------------------|-----------------|---------------------|
| 51 | WF-03-C-06                               | BLOCKS OF FLATS | WALTHAM FOREST      |
|    | BELGRAVE ROAD                            |                 |                     |
|    | WANSTEAD                                 |                 |                     |
|    | Suburban Area (PPS6 Out of Centre)       |                 |                     |
|    | Residential Zone                         |                 |                     |
|    | Total No of Dwellings:                   | 44              |                     |
|    | Survey date: TUESDAY                     | 25/05/21        | Survey Type: MANUAL |
| 52 | WS-03-C-01                               | BLOCKS OF FLATS | WEST SUSSEX         |
|    | GORING ROAD                              |                 |                     |
|    | WORTHING                                 |                 |                     |
|    | GORING-BY-SEA                            |                 |                     |
|    | Neighbourhood Centre (PPS6 Local Centre) |                 |                     |
|    | Residential Zone                         |                 |                     |
|    | Total No of Dwellings:                   | 18              |                     |
|    | Survey date: WEDNESDAY                   | 11/05/22        | Survey Type: MANUAL |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED  
**MULTI-MODAL TOTAL VEHICLES**  
 Calculation factor: 1 DWELLS  
 BOLD print indicates peak (busiest) period  
 Total People to Total Vehicles ratio (all time periods and directions): 3.15

| Time Range    | ARRIVALS |             |           | DEPARTURES |             |           | TOTALS   |             |           |
|---------------|----------|-------------|-----------|------------|-------------|-----------|----------|-------------|-----------|
|               | No. Days | Ave. DWELLS | Trip Rate | No. Days   | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00 - 01:00 |          |             |           |            |             |           |          |             |           |
| 01:00 - 02:00 |          |             |           |            |             |           |          |             |           |
| 02:00 - 03:00 |          |             |           |            |             |           |          |             |           |
| 03:00 - 04:00 |          |             |           |            |             |           |          |             |           |
| 04:00 - 05:00 |          |             |           |            |             |           |          |             |           |
| 05:00 - 06:00 |          |             |           |            |             |           |          |             |           |
| 06:00 - 07:00 | 2        | 32          | 0.000     | 2          | 32          | 0.000     | 2        | 32          | 0.000     |
| 07:00 - 08:00 | 52       | 102         | 0.029     | 52         | 102         | 0.100     | 52       | 102         | 0.129     |
| 08:00 - 09:00 | 52       | 102         | 0.038     | 52         | 102         | 0.117     | 52       | 102         | 0.155     |
| 09:00 - 10:00 | 52       | 102         | 0.054     | 52         | 102         | 0.060     | 52       | 102         | 0.114     |
| 10:00 - 11:00 | 52       | 102         | 0.050     | 52         | 102         | 0.062     | 52       | 102         | 0.112     |
| 11:00 - 12:00 | 52       | 102         | 0.050     | 52         | 102         | 0.060     | 52       | 102         | 0.110     |
| 12:00 - 13:00 | 52       | 102         | 0.054     | 52         | 102         | 0.061     | 52       | 102         | 0.115     |
| 13:00 - 14:00 | 52       | 102         | 0.050     | 52         | 102         | 0.058     | 52       | 102         | 0.108     |
| 14:00 - 15:00 | 52       | 102         | 0.045     | 52         | 102         | 0.050     | 52       | 102         | 0.095     |
| 15:00 - 16:00 | 52       | 102         | 0.071     | 52         | 102         | 0.052     | 52       | 102         | 0.123     |
| 16:00 - 17:00 | 52       | 102         | 0.087     | 52         | 102         | 0.057     | 52       | 102         | 0.144     |
| 17:00 - 18:00 | 52       | 102         | 0.107     | 52         | 102         | 0.058     | 52       | 102         | 0.165     |
| 18:00 - 19:00 | 52       | 102         | 0.105     | 52         | 102         | 0.061     | 52       | 102         | 0.166     |
| 19:00 - 20:00 | 24       | 119         | 0.069     | 24         | 119         | 0.042     | 24       | 119         | 0.111     |
| 20:00 - 21:00 | 24       | 119         | 0.053     | 24         | 119         | 0.037     | 24       | 119         | 0.090     |
| 21:00 - 22:00 |          |             |           |            |             |           |          |             |           |
| 22:00 - 23:00 |          |             |           |            |             |           |          |             |           |
| 23:00 - 24:00 |          |             |           |            |             |           |          |             |           |
| Total Rates:  |          |             | 0.862     |            |             | 0.875     |          |             | 1.737     |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

|                                               |                     |
|-----------------------------------------------|---------------------|
| Trip rate parameter range selected:           | 6 - 493 (units: )   |
| Survey date date range:                       | 01/01/15 - 14/06/23 |
| Number of weekdays (Monday-Friday):           | 52                  |
| Number of Saturdays:                          | 0                   |
| Number of Sundays:                            | 0                   |
| Surveys automatically removed from selection: | 6                   |
| Surveys manually removed from selection:      | 0                   |

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED  
 MULTI-MODAL TOTAL PEOPLE  
 Calculation factor: 1 DWELLS  
 BOLD print indicates peak (busiest) period  
 Total People to Total Vehicles ratio (all time periods and directions): 3.15

| Time Range    | ARRIVALS |             |           | DEPARTURES |             |           | TOTALS   |             |           |
|---------------|----------|-------------|-----------|------------|-------------|-----------|----------|-------------|-----------|
|               | No. Days | Ave. DWELLS | Trip Rate | No. Days   | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00 - 01:00 |          |             |           |            |             |           |          |             |           |
| 01:00 - 02:00 |          |             |           |            |             |           |          |             |           |
| 02:00 - 03:00 |          |             |           |            |             |           |          |             |           |
| 03:00 - 04:00 |          |             |           |            |             |           |          |             |           |
| 04:00 - 05:00 |          |             |           |            |             |           |          |             |           |
| 05:00 - 06:00 |          |             |           |            |             |           |          |             |           |
| 06:00 - 07:00 | 2        | 32          | 0.031     | 2          | 32          | 0.000     | 2        | 32          | 0.031     |
| 07:00 - 08:00 | 52       | 102         | 0.059     | 52         | 102         | 0.327     | 52       | 102         | 0.386     |
| 08:00 - 09:00 | 52       | 102         | 0.093     | 52         | 102         | 0.510     | 52       | 102         | 0.603     |
| 09:00 - 10:00 | 52       | 102         | 0.131     | 52         | 102         | 0.227     | 52       | 102         | 0.358     |
| 10:00 - 11:00 | 52       | 102         | 0.124     | 52         | 102         | 0.176     | 52       | 102         | 0.300     |
| 11:00 - 12:00 | 52       | 102         | 0.135     | 52         | 102         | 0.167     | 52       | 102         | 0.302     |
| 12:00 - 13:00 | 52       | 102         | 0.160     | 52         | 102         | 0.164     | 52       | 102         | 0.324     |
| 13:00 - 14:00 | 52       | 102         | 0.148     | 52         | 102         | 0.165     | 52       | 102         | 0.313     |
| 14:00 - 15:00 | 52       | 102         | 0.149     | 52         | 102         | 0.148     | 52       | 102         | 0.297     |
| 15:00 - 16:00 | 52       | 102         | 0.245     | 52         | 102         | 0.161     | 52       | 102         | 0.406     |
| 16:00 - 17:00 | 52       | 102         | 0.275     | 52         | 102         | 0.155     | 52       | 102         | 0.430     |
| 17:00 - 18:00 | 52       | 102         | 0.340     | 52         | 102         | 0.164     | 52       | 102         | 0.504     |
| 18:00 - 19:00 | 52       | 102         | 0.371     | 52         | 102         | 0.173     | 52       | 102         | 0.544     |
| 19:00 - 20:00 | 24       | 119         | 0.317     | 24         | 119         | 0.134     | 24       | 119         | 0.451     |
| 20:00 - 21:00 | 24       | 119         | 0.215     | 24         | 119         | 0.114     | 24       | 119         | 0.329     |
| 21:00 - 22:00 |          |             |           |            |             |           |          |             |           |
| 22:00 - 23:00 |          |             |           |            |             |           |          |             |           |
| 23:00 - 24:00 |          |             |           |            |             |           |          |             |           |
| Total Rates:  |          |             | 2.793     |            |             | 2.785     |          |             | 5.578     |

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

Calculation Reference: AUDIT-434201-240130-0122

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : A - HOUSES PRIVATELY OWNED  
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

|    |                                |         |
|----|--------------------------------|---------|
| 01 | GREATER LONDON                 |         |
|    | BN BARNET                      | 1 days  |
|    | EN ENFIELD                     | 2 days  |
|    | HG HARINGEY                    | 1 days  |
|    | HO HOUNSLOW                    | 1 days  |
|    | WF WALTHAM FOREST              | 1 days  |
| 02 | SOUTH EAST                     |         |
|    | CT CENTRAL BEDFORDSHIRE        | 1 days  |
|    | ES EAST SUSSEX                 | 6 days  |
|    | EX ESSEX                       | 1 days  |
|    | HC HAMPSHIRE                   | 11 days |
|    | HF HERTFORDSHIRE               | 2 days  |
|    | IW ISLE OF WIGHT               | 1 days  |
|    | KC KENT                        | 8 days  |
|    | MW MEDWAY                      | 2 days  |
|    | SC SURREY                      | 4 days  |
|    | SP SOUTHAMPTON                 | 1 days  |
|    | WB WEST BERKSHIRE              | 1 days  |
|    | WS WEST SUSSEX                 | 11 days |
| 03 | SOUTH WEST                     |         |
|    | DC DORSET                      | 2 days  |
|    | DV DEVON                       | 2 days  |
|    | SD SWINDON                     | 1 days  |
|    | SM SOMERSET                    | 3 days  |
|    | TB TORBAY                      | 1 days  |
| 04 | EAST ANGLIA                    |         |
|    | CA CAMBRIDGESHIRE              | 2 days  |
|    | NF NORFOLK                     | 20 days |
|    | PB PETERBOROUGH                | 1 days  |
|    | SF SUFFOLK                     | 4 days  |
| 05 | EAST MIDLANDS                  |         |
|    | DY DERBY                       | 1 days  |
|    | LE LEICESTERSHIRE              | 1 days  |
|    | LN LINCOLNSHIRE                | 1 days  |
|    | NT NOTTINGHAMSHIRE             | 1 days  |
| 06 | WEST MIDLANDS                  |         |
|    | ST STAFFORDSHIRE               | 1 days  |
|    | WK WARWICKSHIRE                | 1 days  |
|    | WM WEST MIDLANDS               | 2 days  |
| 07 | YORKSHIRE & NORTH LINCOLNSHIRE |         |
|    | NY NORTH YORKSHIRE             | 3 days  |
| 08 | NORTH WEST                     |         |
|    | AC CHESHIRE WEST & CHESTER     | 3 days  |
| 09 | NORTH                          |         |
|    | DH DURHAM                      | 3 days  |
|    | FU WESTMORLAND & FURNESS       | 1 days  |
| 10 | WALES                          |         |
|    | PS POWYS                       | 2 days  |
|    | VG VALE OF GLAMORGAN           | 1 days  |
| 11 | SCOTLAND                       |         |
|    | AS ABERDEENSHIRE               | 1 days  |
|    | HI HIGHLAND                    | 1 days  |
| 12 | CONNAUGHT                      |         |
|    | CS SLIGO                       | 2 days  |
|    | LT LEITRIM                     | 1 days  |
|    | MA MAYO                        | 1 days  |
| 13 | MUNSTER                        |         |
|    | TI TIPPERARY                   | 1 days  |
| 14 | LEINSTER                       |         |
|    | LU LOUTH                       | 1 days  |
|    | WC WICKLOW                     | 2 days  |
| 15 | GREATER DUBLIN                 |         |
|    | DL DUBLIN                      | 2 days  |
| 16 | ULSTER (REPUBLIC OF IRELAND)   |         |
|    | CV CAVAN                       | 2 days  |

|    |    |                           |        |
|----|----|---------------------------|--------|
|    | DN | DONEGAL                   | 1 days |
|    | MG | MONAGHAN                  | 2 days |
| 17 |    | ULSTER (NORTHERN IRELAND) |        |
|    | AN | ANTRIM                    | 1 days |
|    | DE | DERRY                     | 2 days |
|    | TY | TYRONE                    | 1 days |

*This section displays the number of survey days per TRICS® sub-region in the selected set*

Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: No of Dwellings  
 Actual Range: 6 to 1817 (units: )  
 Range Selected by User: 4 to 1817 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 04/07/23

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

|           |         |
|-----------|---------|
| Monday    | 25 days |
| Tuesday   | 32 days |
| Wednesday | 36 days |
| Thursday  | 26 days |
| Friday    | 14 days |

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

|                       |          |
|-----------------------|----------|
| Manual count          | 133 days |
| Directional ATC Count | 0 days   |

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

|                                          |    |
|------------------------------------------|----|
| Edge of Town Centre                      | 11 |
| Suburban Area (PPS6 Out of Centre)       | 18 |
| Edge of Town                             | 75 |
| Neighbourhood Centre (PPS6 Local Centre) | 28 |
| Free Standing (PPS6 Out of Town)         | 1  |

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

|                  |    |
|------------------|----|
| Industrial Zone  | 2  |
| Residential Zone | 93 |
| Village          | 23 |
| Out of Town      | 6  |
| High Street      | 1  |
| No Sub Category  | 8  |

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Inclusion of Servicing Vehicles Counts:

|                             |                    |
|-----------------------------|--------------------|
| Servicing vehicles Included | 51 days - Selected |
| Servicing vehicles Excluded | 96 days - Selected |

Secondary Filtering selection:

Use Class:

C3 133 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

|                   |         |
|-------------------|---------|
| 1,000 or Less     | 4 days  |
| 1,001 to 5,000    | 24 days |
| 5,001 to 10,000   | 37 days |
| 10,001 to 15,000  | 30 days |
| 15,001 to 20,000  | 13 days |
| 20,001 to 25,000  | 12 days |
| 25,001 to 50,000  | 10 days |
| 50,001 to 100,000 | 3 days  |

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

|                    |         |
|--------------------|---------|
| 5,000 or Less      | 3 days  |
| 5,001 to 25,000    | 27 days |
| 25,001 to 50,000   | 19 days |
| 50,001 to 75,000   | 20 days |
| 75,001 to 100,000  | 13 days |
| 100,001 to 125,000 | 4 days  |
| 125,001 to 250,000 | 32 days |
| 250,001 to 500,000 | 9 days  |
| 500,001 or More    | 6 days  |

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

|             |         |
|-------------|---------|
| 0.5 or Less | 1 days  |
| 0.6 to 1.0  | 33 days |
| 1.1 to 1.5  | 85 days |
| 1.6 to 2.0  | 14 days |

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

|     |         |
|-----|---------|
| Yes | 63 days |
| No  | 70 days |

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

|                    |          |
|--------------------|----------|
| No PTAL Present    | 127 days |
| 1a (Low) Very poor | 1 days   |
| 1b Very poor       | 1 days   |
| 2 Poor             | 1 days   |
| 3 Moderate         | 1 days   |
| 4 Good             | 1 days   |
| 5 Very Good        | 1 days   |

*This data displays the number of selected surveys with PTAL Ratings.*

|                       |     |                                                                                                    |
|-----------------------|-----|----------------------------------------------------------------------------------------------------|
| Covid-19 Restrictions | Yes | At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions |
|-----------------------|-----|----------------------------------------------------------------------------------------------------|

LIST OF SITES relevant to selection parameters

|   |                                                                                                                                                                             |                          |                         |                     |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------|---------------------|
| 1 | AC-03-A-04<br>LONDON ROAD<br>NORTHWICH<br>LEFTWICH<br>Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 24<br>Survey date: THURSDAY 06/06/19 | TOWN HOUSES              | CHESHIRE WEST & CHESTER | Survey Type: MANUAL |
| 2 | AC-03-A-05<br>MEADOW DRIVE<br>NORTHWICH<br>BARNTON<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 40<br>Survey date: FRIDAY 30/04/21      | SEMI-DETACHED & TERRACED | CHESHIRE WEST & CHESTER | Survey Type: MANUAL |
| 3 | AC-03-A-06<br>COMMON LANE<br>NEAR CHESTER<br>WAVERTON<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 99<br>Survey date: FRIDAY 29/04/22   | DETACHED HOUSES          | CHESHIRE WEST & CHESTER | Survey Type: MANUAL |
| 4 | AN-03-A-09<br>SLOEFIELD DRIVE<br>CARRICKFERGUS<br><br>Edge of Town<br>No Sub Category<br>Total No of Dwellings: 151<br>Survey date: WEDNESDAY 12/10/16                      | DETACHED & SEMI-DETACHED | ANTRIM                  | Survey Type: MANUAL |
| 5 | AS-03-A-02<br>FARROCHIE ROAD<br>STONEHAVEN<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 131<br>Survey date: WEDNESDAY 20/04/22                         | MIXED HOUSES             | ABERDEENSHIRE           | Survey Type: MANUAL |
| 6 | BN-03-A-04<br>SWEETS WAY<br>WHETSTONE<br><br>Neighbourhood Centre (PPS6 Local Centre)<br>Residential Zone<br>Total No of Dwellings: 231<br>Survey date: TUESDAY 21/09/21    | MIXED HOUSES & FLATS     | BARNET                  | Survey Type: MANUAL |
| 7 | CA-03-A-07<br>FIELD END<br>NEAR ELY<br>WITCHFORD<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 32<br>Survey date: THURSDAY 27/05/21      | MIXED HOUSES             | CAMBRIDGESHIRE          | Survey Type: MANUAL |
| 8 | CA-03-A-08<br>GIDDING ROAD<br>SAWTRY<br><br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 83<br>Survey date: THURSDAY 13/10/22              | DETACHED & SEMI-DETACHED | CAMBRIDGESHIRE          | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                                                          |                          |                      |                     |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------|---------------------|
| 9  | CS-03-A-03<br>TOP ROAD<br>STRANDHILL<br>STRANDHILL<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 30<br>Survey date: THURSDAY 27/10/16 | MIXED HOUSES             | SLIGO                | Survey Type: MANUAL |
| 10 | CS-03-A-04<br>R292<br>STRANDHILL<br><br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 63<br>Survey date: THURSDAY 27/10/16               | DETACHED & SEMI-DETACHED | SLIGO                | Survey Type: MANUAL |
| 11 | CT-03-A-01<br>ARLESEY ROAD<br>STOTFOLD<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 46<br>Survey date: WEDNESDAY 22/06/22                           | MIXED HOUSES             | CENTRAL BEDFORDSHIRE | Survey Type: MANUAL |
| 12 | CV-03-A-02<br>R212 DUBLIN ROAD<br>CAVAN<br>KILLYNEBBBER<br>Edge of Town<br>No Sub Category<br>Total No of Dwellings: 80<br>Survey date: MONDAY 22/05/17                  | DETACHED & SEMI DETACHED | CAVAN                | Survey Type: MANUAL |
| 13 | CV-03-A-03<br>R212 DUBLIN ROAD<br>CAVAN<br>PULLAMORE NEAR<br>Edge of Town<br>No Sub Category<br>Total No of Dwellings: 37<br>Survey date: MONDAY 22/05/17                | DETACHED HOUSES          | CAVAN                | Survey Type: MANUAL |
| 14 | DC-03-A-09<br>A350<br>SHAFTESBURY<br><br>Edge of Town<br>No Sub Category<br>Total No of Dwellings: 50<br>Survey date: FRIDAY 19/11/21                                    | MIXED HOUSES             | DORSET               | Survey Type: MANUAL |
| 15 | DC-03-A-10<br>ADDISON CLOSE<br>GILLINGHAM<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 26<br>Survey date: WEDNESDAY 09/11/22                        | MIXED HOUSES             | DORSET               | Survey Type: MANUAL |
| 16 | DE-03-A-04<br>GREENHALL HIGHWAY<br>COLERAINE<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 38<br>Survey date: THURSDAY 19/05/22                      | SEMI-DETACHED & TERRACED | DERRY                | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                                                                                 |                          |         |                     |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|---------------------|
| 17 | DE-03-A-05<br>CLOYFIN ROAD<br>COLERAINE<br>LOGUESTOWN IND. ESTATE<br>Edge of Town<br>Industrial Zone<br>Total No of Dwellings: 51<br>Survey date: FRIDAY 20/05/22                               | SEMI-DETACHED & TERRACED | DERRY   | Survey Type: MANUAL |
| 18 | DH-03-A-01<br>GREENFIELDS ROAD<br>BISHOP AUCKLAND<br><br>Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 50<br>Survey date: TUESDAY 28/03/17                   | SEMI DETACHED            | DURHAM  | Survey Type: MANUAL |
| 19 | DH-03-A-02<br>LEAZES LANE<br>BISHOP AUCKLAND<br>ST HELEN AUCKLAND<br>Neighbourhood Centre (PPS6 Local Centre)<br>Residential Zone<br>Total No of Dwellings: 125<br>Survey date: MONDAY 27/03/17 | MIXED HOUSES             | DURHAM  | Survey Type: MANUAL |
| 20 | DH-03-A-03<br>PILGRIMS WAY<br>DURHAM<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 57<br>Survey date: FRIDAY 19/10/18                                                       | SEMI-DETACHED & TERRACED | DURHAM  | Survey Type: MANUAL |
| 21 | DL-03-A-10<br>R124<br>MALAHIDE<br>SAINT HELENS<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 65<br>Survey date: WEDNESDAY 20/06/18                                              | SEMI DETACHED & DETACHED | DUBLIN  | Survey Type: MANUAL |
| 22 | DL-03-A-11<br>GRACE PARK ROAD<br>DUBLIN<br>WHITEHALL<br>Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 19<br>Survey date: WEDNESDAY 19/05/21                  | SEMI-DETACHED HOUSES     | DUBLIN  | Survey Type: MANUAL |
| 23 | DN-03-A-06<br>GLENFIN ROAD<br>BALLYBOFEY<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 6<br>Survey date: WEDNESDAY 10/10/18                                                 | DETACHED HOUSING         | DONEGAL | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                             |                          |             |
|----|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------|
| 24 | DV-03-A-02<br>MILLHEAD ROAD<br>HONITON                                                                                                      | HOUSES & BUNGALOWS       | DEVON       |
|    | Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 116<br>Survey date: FRIDAY 25/09/15<br>Survey Type: MANUAL |                          |             |
| 25 | DV-03-A-03<br>LOWER BRAND LANE<br>HONITON                                                                                                   | TERRACED & SEMI DETACHED | DEVON       |
|    | Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 70<br>Survey date: MONDAY 28/09/15<br>Survey Type: MANUAL  |                          |             |
| 26 | DY-03-A-01<br>RADBOURNE LANE<br>DERBY                                                                                                       | MIXED HOUSES             | DERBY       |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 371<br>Survey date: TUESDAY 10/07/18<br>Survey Type: MANUAL                      |                          |             |
| 27 | EN-03-A-01<br>BOLLINGBROKE PARK<br>COCKFOSTERS                                                                                              | TERRACED & SEMI-DETACHED | ENFIELD     |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 32<br>Survey date: WEDNESDAY 24/11/21<br>Survey Type: MANUAL                     |                          |             |
| 28 | EN-03-A-02<br>DUCHY ROAD<br>HADLEY WOOD                                                                                                     | DETACHED HOUSES          | ENFIELD     |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 9<br>Survey date: WEDNESDAY 14/09/22<br>Survey Type: MANUAL                      |                          |             |
| 29 | ES-03-A-03<br>SHEPHAM LANE<br>POLEGATE                                                                                                      | MIXED HOUSES & FLATS     | EAST SUSSEX |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 212<br>Survey date: MONDAY 11/07/16<br>Survey Type: MANUAL                       |                          |             |
| 30 | ES-03-A-05<br>RATTLE ROAD<br>NEAR EASTBOURNE<br>STONE CROSS                                                                                 | MIXED HOUSES & FLATS     | EAST SUSSEX |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 99<br>Survey date: WEDNESDAY 05/06/19<br>Survey Type: MANUAL                     |                          |             |
| 31 | ES-03-A-06<br>BISHOPS LANE<br>RINGMER                                                                                                       | MIXED HOUSES             | EAST SUSSEX |
|    | Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 12<br>Survey date: WEDNESDAY 16/06/21<br>Survey Type: MANUAL  |                          |             |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                                                     |                             |                       |                     |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------|---------------------|
| 32 | ES-03-A-07<br>NEW ROAD<br>HAILSHAM<br>HELLINGLY<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 91<br>Survey date: THURSDAY 07/11/19                  | MIXED HOUSES & FLATS        | EAST SUSSEX           | Survey Type: MANUAL |
| 33 | ES-03-A-08<br>WRESTWOOD ROAD<br>BEXHILL<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 110<br>Survey date: WEDNESDAY 12/10/22                    | MIXED HOUSES & FLATS        | EAST SUSSEX           | Survey Type: MANUAL |
| 34 | ES-03-A-09<br>THE FAIRWAY<br>NEWHAVEN<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 47<br>Survey date: MONDAY 13/03/23                          | DETACHED & SEMI-DETACHED    | EAST SUSSEX           | Survey Type: MANUAL |
| 35 | EX-03-A-03<br>KESTREL GROVE<br>RAYLEIGH<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 123<br>Survey date: MONDAY 27/09/21                       | MIXED HOUSES                | ESSEX                 | Survey Type: MANUAL |
| 36 | FU-03-A-02<br>MACADAM WAY<br>PENRITH<br><br>Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings: 50<br>Survey date: TUESDAY 21/06/16                   | DETACHED / TERRACED HOUSING | WESTMORLAND & FURNESS | Survey Type: MANUAL |
| 37 | HC-03-A-21<br>PRIESTLEY ROAD<br>BASINGSTOKE<br>HOUNDMILLS<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 39<br>Survey date: TUESDAY 13/11/18         | TERRACED & SEMI-DETACHED    | HAMPSHIRE             | Survey Type: MANUAL |
| 38 | HC-03-A-22<br>BOW LAKE GARDENS<br>NEAR EASTLEIGH<br>BISHOPSTOKE<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 40<br>Survey date: WEDNESDAY 31/10/18 | MIXED HOUSES                | HAMPSHIRE             | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                             |                      |           |
|----|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------|
| 39 | HC-03-A-23<br>CANADA WAY<br>LIPHOOK                                                                                                         | HOUSES & FLATS       | HAMPSHIRE |
|    | Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 62<br>Survey date: TUESDAY 19/11/19<br>Survey Type: MANUAL |                      |           |
| 40 | HC-03-A-24<br>STONEHAM LANE<br>EASTLEIGH                                                                                                    | MIXED HOUSES & FLATS | HAMPSHIRE |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 243<br>Survey date: WEDNESDAY 10/11/21<br>Survey Type: MANUAL                    |                      |           |
| 41 | HC-03-A-26<br>BOTLEY ROAD<br>WHITELEY                                                                                                       | MIXED HOUSES & FLATS | HAMPSHIRE |
|    | Edge of Town<br>Out of Town<br>Total No of Dwellings: 270<br>Survey date: THURSDAY 24/06/21<br>Survey Type: MANUAL                          |                      |           |
| 42 | HC-03-A-27<br>DAIRY ROAD<br>ANDOVER                                                                                                         | MIXED HOUSES         | HAMPSHIRE |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 73<br>Survey date: TUESDAY 16/11/21<br>Survey Type: MANUAL                       |                      |           |
| 43 | HC-03-A-28<br>EAGLE AVENUE<br>WATERLOOVILLE<br>LOVEDEAN                                                                                     | MIXED HOUSES & FLATS | HAMPSHIRE |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 125<br>Survey date: MONDAY 08/11/21<br>Survey Type: MANUAL                       |                      |           |
| 44 | HC-03-A-30<br>MEUDON AVENUE<br>FARNBOROUGH                                                                                                  | TERRACED HOUSES      | HAMPSHIRE |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings: 31<br>Survey date: FRIDAY 14/10/22<br>Survey Type: MANUAL                 |                      |           |
| 45 | HC-03-A-31<br>KILN ROAD<br>LIPHOOK                                                                                                          | MIXED HOUSES & FLATS | HAMPSHIRE |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 44<br>Survey date: FRIDAY 07/10/22<br>Survey Type: MANUAL                        |                      |           |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                          |                          |                     |
|----|------------------------------------------|--------------------------|---------------------|
| 46 | HC-03-A-32                               | MIXED HOUSES & FLATS     | HAMPSHIRE           |
|    | GREEN LANE                               |                          |                     |
|    | FARNHAM                                  |                          |                     |
|    | WEYBOURNE                                |                          |                     |
|    | Neighbourhood Centre (PPS6 Local Centre) |                          |                     |
|    | Residential Zone                         |                          |                     |
|    | Total No of Dwellings:                   | 105                      |                     |
|    | Survey date: THURSDAY                    | 29/06/23                 | Survey Type: MANUAL |
| 47 | HC-03-A-33                               | MIXED HOUSES & FLATS     | HAMPSHIRE           |
|    | CROW LANE                                |                          |                     |
|    | RINGWOOD                                 |                          |                     |
|    | CROW                                     |                          |                     |
|    | Edge of Town                             |                          |                     |
|    | Residential Zone                         |                          |                     |
|    | Total No of Dwellings:                   | 195                      |                     |
|    | Survey date: TUESDAY                     | 04/07/23                 | Survey Type: MANUAL |
| 48 | HF-03-A-03                               | MIXED HOUSES             | HERTFORDSHIRE       |
|    | HARE STREET ROAD                         |                          |                     |
|    | BUNTINGFORD                              |                          |                     |
|    | Edge of Town                             |                          |                     |
|    | Residential Zone                         |                          |                     |
|    | Total No of Dwellings:                   | 160                      |                     |
|    | Survey date: MONDAY                      | 08/07/19                 | Survey Type: MANUAL |
| 49 | HF-03-A-04                               | TERRACED HOUSES          | HERTFORDSHIRE       |
|    | HOLMSIDE RISE                            |                          |                     |
|    | WATFORD                                  |                          |                     |
|    | SOUTH OXHEY                              |                          |                     |
|    | Edge of Town                             |                          |                     |
|    | Residential Zone                         |                          |                     |
|    | Total No of Dwellings:                   | 8                        |                     |
|    | Survey date: TUESDAY                     | 08/06/21                 | Survey Type: MANUAL |
| 50 | HG-03-A-01                               | DETACHED & SEMI-DETACHED | HARINGEY            |
|    | LAWRENCE ROAD                            |                          |                     |
|    | TOTTENHAM                                |                          |                     |
|    | WEST GREEN                               |                          |                     |
|    | Neighbourhood Centre (PPS6 Local Centre) |                          |                     |
|    | High Street                              |                          |                     |
|    | Total No of Dwellings:                   | 20                       |                     |
|    | Survey date: TUESDAY                     | 05/11/19                 | Survey Type: MANUAL |
| 51 | HI-03-A-14                               | SEMI-DETACHED & TERRACED | HIGHLAND            |
|    | KING BRUDE ROAD                          |                          |                     |
|    | INVERNESS                                |                          |                     |
|    | SCORGUIE                                 |                          |                     |
|    | Suburban Area (PPS6 Out of Centre)       |                          |                     |
|    | Residential Zone                         |                          |                     |
|    | Total No of Dwellings:                   | 40                       |                     |
|    | Survey date: WEDNESDAY                   | 23/03/16                 | Survey Type: MANUAL |
| 52 | HO-03-A-02                               | MIXED HOUSES             | HOUNSLOW            |
|    | HIBERNIAN ROAD                           |                          |                     |
|    | HOUNSLOW                                 |                          |                     |
|    | Edge of Town Centre                      |                          |                     |
|    | Residential Zone                         |                          |                     |
|    | Total No of Dwellings:                   | 50                       |                     |
|    | Survey date: MONDAY                      | 29/06/15                 | Survey Type: MANUAL |
| 53 | IW-03-A-01                               | DETACHED HOUSES          | ISLE OF WIGHT       |
|    | MEDHAM FARM LANE                         |                          |                     |
|    | NEAR COWES                               |                          |                     |
|    | MEDHAM                                   |                          |                     |
|    | Free Standing (PPS6 Out of Town)         |                          |                     |
|    | Out of Town                              |                          |                     |
|    | Total No of Dwellings:                   | 72                       |                     |
|    | Survey date: TUESDAY                     | 25/06/19                 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                                                               |                          |      |                     |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------|---------------------|
| 54 | KC-03-A-03<br>HYTHE ROAD<br>ASHFORD<br>WILLESBOROUGH<br>Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 51<br>Survey date: THURSDAY 14/07/16 | MIXED HOUSES & FLATS     | KENT | Survey Type: MANUAL |
| 55 | KC-03-A-04<br>KILN BARN ROAD<br>AYLESFORD<br>DITTON<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 110<br>Survey date: FRIDAY 22/09/17                         | SEMI-DETACHED & TERRACED | KENT | Survey Type: MANUAL |
| 56 | KC-03-A-06<br>MARGATE ROAD<br>HERNE BAY<br><br>Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 363<br>Survey date: WEDNESDAY 27/09/17        | MIXED HOUSES & FLATS     | KENT | Survey Type: MANUAL |
| 57 | KC-03-A-07<br>RECULVER ROAD<br>HERNE BAY<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 288<br>Survey date: WEDNESDAY 27/09/17                             | MIXED HOUSES             | KENT | Survey Type: MANUAL |
| 58 | KC-03-A-08<br>MAIDSTONE ROAD<br>CHARING<br><br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 159<br>Survey date: TUESDAY 22/05/18             | MIXED HOUSES             | KENT | Survey Type: MANUAL |
| 59 | KC-03-A-09<br>WESTERN LINK<br>FAVERSHAM<br>DAVINGTON<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 14<br>Survey date: WEDNESDAY 09/06/21                      | MIXED HOUSES & FLATS     | KENT | Survey Type: MANUAL |
| 60 | KC-03-A-10<br>HEADCORN ROAD<br>STAPLEHURST<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 106<br>Survey date: TUESDAY 09/05/23                             | MIXED HOUSES             | KENT | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                                                    |                          |                     |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------|
| 61 | KC-03-A-11                                                                                                                                                         | MIXED HOUSES & FLATS     | KENT                |
|    | COLDHARBOUR ROAD<br>GRAVESEND                                                                                                                                      |                          |                     |
|    | Edge of Town<br>No Sub Category<br>Total No of Dwellings: 375<br>Survey date: MONDAY 20/03/23                                                                      |                          | Survey Type: MANUAL |
| 62 | LE-03-A-02                                                                                                                                                         | DETACHED & OTHERS        | LEICESTERSHIRE      |
|    | MELBOURNE ROAD<br>IBSTOCK                                                                                                                                          |                          |                     |
|    | Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 85<br>Survey date: THURSDAY 28/06/18                                                 |                          | Survey Type: MANUAL |
| 63 | LN-03-A-04                                                                                                                                                         | DETACHED & SEMI-DETACHED | LINCOLNSHIRE        |
|    | EGERTON ROAD<br>LINCOLN                                                                                                                                            |                          |                     |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings: 30<br>Survey date: MONDAY 29/06/15                                                               |                          | Survey Type: MANUAL |
| 64 | LT-03-A-01                                                                                                                                                         | SEMI-DETACHED & DETACHED | LEITRIM             |
|    | ARD NA SI<br>CARRICK-ON-SHANNON<br>ATTIRORY<br>Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 90<br>Survey date: FRIDAY 24/04/15 |                          | Survey Type: MANUAL |
| 65 | LU-03-A-01                                                                                                                                                         | TERRACED & SEMI-DETACHED | LOUTH               |
|    | RATHMULLAN ROAD<br>DROGHEDA                                                                                                                                        |                          |                     |
|    | Neighbourhood Centre (PPS6 Local Centre)<br>Residential Zone<br>Total No of Dwellings: 111<br>Survey date: TUESDAY 21/09/21                                        |                          | Survey Type: MANUAL |
| 66 | MA-03-A-02                                                                                                                                                         | SEMI-DETACHED HOUSES     | MAYO                |
|    | CONVENT ROAD<br>CLAREMORRIS                                                                                                                                        |                          |                     |
|    | Edge of Town Centre<br>No Sub Category<br>Total No of Dwellings: 31<br>Survey date: WEDNESDAY 15/09/21                                                             |                          | Survey Type: MANUAL |
| 67 | MG-03-A-01                                                                                                                                                         | SEMI-DETACHED HOUSES     | MONAGHAN            |
|    | ORIEL WAY<br>MONAGHAN                                                                                                                                              |                          |                     |
|    | Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 49<br>Survey date: TUESDAY 12/10/21                                               |                          | Survey Type: MANUAL |
| 68 | MG-03-A-02                                                                                                                                                         | MIXED HOUSES             | MONAGHAN            |
|    | GLEN ROAD<br>MONAGHAN                                                                                                                                              |                          |                     |
|    | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings: 76<br>Survey date: TUESDAY 12/10/21                                                              |                          | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                                                                           |                          |         |                     |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|---------------------|
| 69 | MW-03-A-01<br>ROCHESTER ROAD<br>NEAR CHATHAM<br>BURHAM<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 8<br>Survey date: FRIDAY 22/09/17                 | DETACHED & SEMI-DETACHED | MEDWAY  | Survey Type: MANUAL |
| 70 | MW-03-A-02<br>OTTERHAM QUAY LANE<br>RAINHAM<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 19<br>Survey date: MONDAY 06/06/22                                          | MIXED HOUSES             | MEDWAY  | Survey Type: MANUAL |
| 71 | NF-03-A-03<br>HALING WAY<br>THETFORD<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 10<br>Survey date: WEDNESDAY 16/09/15                                              | DETACHED HOUSES          | NORFOLK | Survey Type: MANUAL |
| 72 | NF-03-A-05<br>HEATH DRIVE<br>HOLT<br><br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 40<br>Survey date: THURSDAY 19/09/19                                                  | MIXED HOUSES             | NORFOLK | Survey Type: MANUAL |
| 73 | NF-03-A-06<br>BEAUFORT WAY<br>GREAT YARMOUTH<br>BRADWELL<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 275<br>Survey date: MONDAY 23/09/19                                | MIXED HOUSES             | NORFOLK | Survey Type: MANUAL |
| 74 | NF-03-A-08<br>SIR ALFRED MUNNINGS RD<br>NEAR NORWICH<br>COSTESSEY<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 1817<br>Survey date: THURSDAY 19/09/19 | MIXED HOUSES & FLATS     | NORFOLK | Survey Type: MANUAL |
| 75 | NF-03-A-09<br>ROUND HOUSE WAY<br>NORWICH<br>CRINGLEFORD<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 984<br>Survey date: TUESDAY 24/09/19                                | MIXED HOUSES & FLATS     | NORFOLK | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                                                                                               |                      |                     |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------|
| 76 | NF-03-A-23<br>SILFIELD ROAD<br>WYMONDHAM                                                                                                                                      | MIXED HOUSES & FLATS | NORFOLK             |
|    | Edge of Town<br>Out of Town<br>Total No of Dwellings: 514<br>Survey date: WEDNESDAY 22/09/21                                                                                  |                      | Survey Type: MANUAL |
| 77 | NF-03-A-25<br>WOODFARM LANE<br>GORLESTON-ON-SEA                                                                                                                               | MIXED HOUSES & FLATS | NORFOLK             |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 55<br>Survey date: TUESDAY 21/09/21                                                                                |                      | Survey Type: MANUAL |
| 78 | NF-03-A-27<br>YARMOUTH ROAD<br>NEAR NORWICH<br>BLOFIELD<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings: 93<br>Survey date: THURSDAY 16/09/21 | MIXED HOUSES & FLATS | NORFOLK             |
| 79 | NF-03-A-28<br>ATLANTIC AVENUE<br>NORWICH<br>SPROWSTON<br>Edge of Town<br>Residential Zone<br>Total No of Dwellings: 1146<br>Survey date: THURSDAY 22/09/22                    | MIXED HOUSES & FLATS | NORFOLK             |
| 80 | NF-03-A-30<br>BRANDON ROAD<br>SWAFFHAM                                                                                                                                        | MIXED HOUSES         | NORFOLK             |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 266<br>Survey date: THURSDAY 23/09/21                                                                              |                      | Survey Type: MANUAL |
| 81 | NF-03-A-33<br>LONDON ROAD<br>ATTLEBOROUGH                                                                                                                                     | MIXED HOUSES         | NORFOLK             |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings: 143<br>Survey date: THURSDAY 29/09/22                                                                              |                      | Survey Type: MANUAL |
| 82 | NF-03-A-34<br>NORWICH ROAD<br>SWAFFHAM                                                                                                                                        | MIXED HOUSES         | NORFOLK             |
|    | Edge of Town<br>Out of Town<br>Total No of Dwellings: 80<br>Survey date: TUESDAY 27/09/22                                                                                     |                      | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                                                                                            |                      |                     |
|----|------------------------------------------------------------------------------------------------------------|----------------------|---------------------|
| 83 | NF-03-A-35<br>REPTON AVENUE<br>NORWICH                                                                     | MIXED HOUSES & FLATS | NORFOLK             |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                                                 | 116                  |                     |
|    | Survey date: WEDNESDAY                                                                                     | 28/09/22             | Survey Type: MANUAL |
| 84 | NF-03-A-36<br>LONDON ROAD<br>WYMONDHAM                                                                     | MIXED HOUSES         | NORFOLK             |
|    | Edge of Town<br>No Sub Category<br>Total No of Dwellings:                                                  | 75                   |                     |
|    | Survey date: THURSDAY                                                                                      | 29/09/22             | Survey Type: MANUAL |
| 85 | NF-03-A-37<br>GREENFIELDS ROAD<br>DEREHAM                                                                  | MIXED HOUSES         | NORFOLK             |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                                                 | 44                   |                     |
|    | Survey date: TUESDAY                                                                                       | 27/09/22             | Survey Type: MANUAL |
| 86 | NF-03-A-38<br>BEAUFORT WAY<br>GREAT YARMOUTH<br>BRADWELL                                                   | MIXED HOUSES         | NORFOLK             |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                                                 | 537                  |                     |
|    | Survey date: TUESDAY                                                                                       | 20/09/22             | Survey Type: MANUAL |
| 87 | NF-03-A-39<br>HEATH DRIVE<br>HOLT                                                                          | MIXED HOUSES         | NORFOLK             |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                                                 | 212                  |                     |
|    | Survey date: TUESDAY                                                                                       | 27/09/22             | Survey Type: MANUAL |
| 88 | NF-03-A-43<br>MILL LANE<br>NEAR NORWICH<br>HORSFORD<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village | MIXED HOUSES         | NORFOLK             |
|    | Total No of Dwellings:                                                                                     | 125                  |                     |
|    | Survey date: WEDNESDAY                                                                                     | 15/09/21             | Survey Type: MANUAL |
| 89 | NF-03-A-46<br>BURGH ROAD<br>AYLSHAM                                                                        | MIXED HOUSES & FLATS | NORFOLK             |
|    | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                                                 | 300                  |                     |
|    | Survey date: TUESDAY                                                                                       | 14/09/21             | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                                    |                          |                     |
|----|------------------------------------|--------------------------|---------------------|
| 90 | NF-03-A-51                         | SEMI-DETACHED            | NORFOLK             |
|    | CITY ROAD                          |                          |                     |
|    | NORWICH                            |                          |                     |
|    | LAKENHAM                           |                          |                     |
|    | Suburban Area (PPS6 Out of Centre) |                          |                     |
|    | Residential Zone                   |                          |                     |
|    | Total No of Dwellings:             | 34                       |                     |
|    | Survey date: TUESDAY               | 13/09/22                 | Survey Type: MANUAL |
| 91 | NT-03-A-08                         | DETACHED HOUSES          | NOTTINGHAMSHIRE     |
|    | WIGHAY ROAD                        |                          |                     |
|    | HUCKNALL                           |                          |                     |
|    | Edge of Town                       |                          |                     |
|    | Residential Zone                   |                          |                     |
|    | Total No of Dwellings:             | 36                       |                     |
|    | Survey date: MONDAY                | 18/10/21                 | Survey Type: MANUAL |
| 92 | NY-03-A-12                         | TOWN HOUSES              | NORTH YORKSHIRE     |
|    | RACECOURSE LANE                    |                          |                     |
|    | NORTHALLERTON                      |                          |                     |
|    | Edge of Town Centre                |                          |                     |
|    | Residential Zone                   |                          |                     |
|    | Total No of Dwellings:             | 47                       |                     |
|    | Survey date: TUESDAY               | 27/09/16                 | Survey Type: MANUAL |
| 93 | NY-03-A-13                         | TERRACED HOUSES          | NORTH YORKSHIRE     |
|    | CATTERICK ROAD                     |                          |                     |
|    | CATTERICK GARRISON                 |                          |                     |
|    | OLD HOSPITAL COMPOUND              |                          |                     |
|    | Suburban Area (PPS6 Out of Centre) |                          |                     |
|    | Residential Zone                   |                          |                     |
|    | Total No of Dwellings:             | 10                       |                     |
|    | Survey date: WEDNESDAY             | 10/05/17                 | Survey Type: MANUAL |
| 94 | NY-03-A-14                         | DETACHED & BUNGALOWS     | NORTH YORKSHIRE     |
|    | PALACE ROAD                        |                          |                     |
|    | RIPON                              |                          |                     |
|    | Edge of Town                       |                          |                     |
|    | Residential Zone                   |                          |                     |
|    | Total No of Dwellings:             | 45                       |                     |
|    | Survey date: WEDNESDAY             | 18/05/22                 | Survey Type: MANUAL |
| 95 | PB-03-A-04                         | DETACHED HOUSES          | PETERBOROUGH        |
|    | EASTFIELD ROAD                     |                          |                     |
|    | PETERBOROUGH                       |                          |                     |
|    | Suburban Area (PPS6 Out of Centre) |                          |                     |
|    | Residential Zone                   |                          |                     |
|    | Total No of Dwellings:             | 28                       |                     |
|    | Survey date: MONDAY                | 17/10/16                 | Survey Type: MANUAL |
| 96 | PS-03-A-01                         | MIXED HOUSES             | POWYS               |
|    | BRYN GLAS                          |                          |                     |
|    | WELSHPOOL                          |                          |                     |
|    | Edge of Town Centre                |                          |                     |
|    | Residential Zone                   |                          |                     |
|    | Total No of Dwellings:             | 16                       |                     |
|    | Survey date: MONDAY                | 11/05/15                 | Survey Type: MANUAL |
| 97 | PS-03-A-02                         | DETACHED / SEMI-DETACHED | POWYS               |
|    | GUNROG ROAD                        |                          |                     |
|    | WELSHPOOL                          |                          |                     |
|    | Suburban Area (PPS6 Out of Centre) |                          |                     |
|    | Residential Zone                   |                          |                     |
|    | Total No of Dwellings:             | 28                       |                     |
|    | Survey date: MONDAY                | 11/05/15                 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|     |                                                                                  |                          |                     |         |
|-----|----------------------------------------------------------------------------------|--------------------------|---------------------|---------|
| 98  | SC-03-A-07<br>FOLLY HILL<br>FARNHAM                                              | MIXED HOUSES             |                     | SURREY  |
|     | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                       | 41                       |                     |         |
|     | Survey date: WEDNESDAY                                                           | 11/05/22                 | Survey Type: MANUAL |         |
| 99  | SC-03-A-08<br>REIGATE ROAD<br>HORLEY                                             | MIXED HOUSES             |                     | SURREY  |
|     | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                       | 790                      |                     |         |
|     | Survey date: WEDNESDAY                                                           | 04/05/22                 | Survey Type: MANUAL |         |
| 100 | SC-03-A-09<br>AMLETS LANE<br>CRANLEIGH                                           | MIXED HOUSES & FLATS     |                     | SURREY  |
|     | Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings:    | 136                      |                     |         |
|     | Survey date: TUESDAY                                                             | 24/05/22                 | Survey Type: MANUAL |         |
| 101 | SC-03-A-10<br>GUILDFORD ROAD<br>ASH                                              | MIXED HOUSES             |                     | SURREY  |
|     | Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings:    | 32                       |                     |         |
|     | Survey date: WEDNESDAY                                                           | 14/09/22                 | Survey Type: MANUAL |         |
| 102 | SD-03-A-01<br>HEADLANDS GROVE<br>SWINDON                                         | SEMI DETACHED            |                     | SWINDON |
|     | Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: | 27                       |                     |         |
|     | Survey date: THURSDAY                                                            | 22/09/16                 | Survey Type: MANUAL |         |
| 103 | SF-03-A-05<br>VALE LANE<br>BURY ST EDMUNDS                                       | DETACHED HOUSES          |                     | SUFFOLK |
|     | Edge of Town<br>Residential Zone<br>Total No of Dwellings:                       | 18                       |                     |         |
|     | Survey date: WEDNESDAY                                                           | 09/09/15                 | Survey Type: MANUAL |         |
| 104 | SF-03-A-06<br>BURY ROAD<br>KENTFORD                                              | DETACHED & SEMI-DETACHED |                     | SUFFOLK |
|     | Neighbourhood Centre (PPS6 Local Centre)<br>Village<br>Total No of Dwellings:    | 38                       |                     |         |
|     | Survey date: FRIDAY                                                              | 22/09/17                 | Survey Type: MANUAL |         |

LIST OF SITES relevant to selection parameters (Cont.)

|     |                                                                                                                                               |                          |               |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------|
| 105 | SF-03-A-09<br>FOXHALL ROAD<br>IPSWICH                                                                                                         | MIXED HOUSES & FLATS     | SUFFOLK       |
|     | Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 179<br>Survey date: THURSDAY 24/06/21<br>Survey Type: MANUAL |                          |               |
| 106 | SF-03-A-10<br>LOVETOFTS DRIVE<br>IPSWICH<br>WHITEHOUSE<br>Edge of Town<br>Residential Zone                                                    | TERRACED & SEMI-DETACHED | SUFFOLK       |
|     | Total No of Dwellings: 149<br>Survey date: TUESDAY 22/06/21<br>Survey Type: MANUAL                                                            |                          |               |
| 107 | SM-03-A-01<br>WEMBDON ROAD<br>BRIDGWATER<br>NORTHFIELD<br>Edge of Town<br>Residential Zone                                                    | DETACHED & SEMI          | SOMERSET      |
|     | Total No of Dwellings: 33<br>Survey date: THURSDAY 24/09/15<br>Survey Type: MANUAL                                                            |                          |               |
| 108 | SM-03-A-02<br>HYDE LANE<br>NEAR TAUNTON<br>CREECH SAINT MICHAEL<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village                        | MIXED HOUSES             | SOMERSET      |
|     | Total No of Dwellings: 42<br>Survey date: TUESDAY 25/09/18<br>Survey Type: MANUAL                                                             |                          |               |
| 109 | SM-03-A-03<br>HYDE LANE<br>NEAR TAUNTON<br>CREECH ST MICHAEL<br>Neighbourhood Centre (PPS6 Local Centre)<br>Village                           | MIXED HOUSES             | SOMERSET      |
|     | Total No of Dwellings: 41<br>Survey date: TUESDAY 25/09/18<br>Survey Type: MANUAL                                                             |                          |               |
| 110 | SP-03-A-02<br>BARNFIELD WAY<br>NEAR SOUTHAMPTON<br>HEDGE END<br>Edge of Town<br>Out of Town                                                   | MIXED HOUSES & FLATS     | SOUTHAMPTON   |
|     | Total No of Dwellings: 250<br>Survey date: TUESDAY 12/10/21<br>Survey Type: MANUAL                                                            |                          |               |
| 111 | ST-03-A-07<br>BEACONSIDE<br>STAFFORD<br>MARSTON GATE<br>Edge of Town<br>Residential Zone                                                      | DETACHED & SEMI-DETACHED | STAFFORDSHIRE |
|     | Total No of Dwellings: 248<br>Survey date: WEDNESDAY 22/11/17<br>Survey Type: MANUAL                                                          |                          |               |
| 112 | TB-03-A-01<br>BRONSHILL ROAD<br>TORQUAY                                                                                                       | TERRACED HOUSES          | TORBAY        |
|     | Suburban Area (PPS6 Out of Centre)<br>Residential Zone<br>Total No of Dwellings: 37<br>Survey date: WEDNESDAY 30/09/15<br>Survey Type: MANUAL |                          |               |

LIST OF SITES relevant to selection parameters (Cont.)

|     |                                                                   |                           |                     |
|-----|-------------------------------------------------------------------|---------------------------|---------------------|
| 113 | TI-03-A-01<br>BRITTAS ROAD<br>THURLES                             | MIXED HOUSES              | TIPPERARY           |
|     | Edge of Town<br>Out of Town<br>Total No of Dwellings:             | 76                        |                     |
|     | Survey date: THURSDAY                                             | 17/06/21                  | Survey Type: MANUAL |
| 114 | TY-03-A-02<br>SANDHOLES ROAD<br>COOKSTOWN<br>DERRYLORAN           | SEMI DETACHED & BUNGALOWS | TYRONE              |
|     | Edge of Town<br>Industrial Zone<br>Total No of Dwellings:         | 101                       |                     |
|     | Survey date: THURSDAY                                             | 14/03/19                  | Survey Type: MANUAL |
| 115 | VG-03-A-01<br>ARTHUR STREET<br>BARRY                              | SEMI-DETACHED & TERRACED  | VALE OF GLAMORGAN   |
|     | Edge of Town<br>Residential Zone<br>Total No of Dwellings:        | 12                        |                     |
|     | Survey date: MONDAY                                               | 08/05/17                  | Survey Type: MANUAL |
| 116 | WB-03-A-03<br>DORKING WAY<br>READING<br>CALCOT                    | MIXED HOUSES              | WEST BERKSHIRE      |
|     | Edge of Town<br>Residential Zone<br>Total No of Dwellings:        | 108                       |                     |
|     | Survey date: FRIDAY                                               | 09/09/22                  | Survey Type: MANUAL |
| 117 | WC-03-A-01<br>STATION ROAD<br>WICKLOW<br>CORPORATION MURRAGH      | DETACHED HOUSES           | WICKLOW             |
|     | Edge of Town<br>No Sub Category<br>Total No of Dwellings:         | 50                        |                     |
|     | Survey date: MONDAY                                               | 28/05/18                  | Survey Type: MANUAL |
| 118 | WC-03-A-02<br>MARLTON ROAD<br>WICKLOW<br>FRIARSHILL               | DETACHED HOUSES           | WICKLOW             |
|     | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings: | 45                        |                     |
|     | Survey date: MONDAY                                               | 28/05/18                  | Survey Type: MANUAL |
| 119 | WF-03-A-02<br>PALMERSTON ROAD<br>WALTHAMSTOW                      | SEMI DETACHED & TERRACED  | WALTHAM FOREST      |
|     | Edge of Town Centre<br>Residential Zone<br>Total No of Dwellings: | 9                         |                     |
|     | Survey date: THURSDAY                                             | 06/06/19                  | Survey Type: MANUAL |
| 120 | WK-03-A-04<br>DALEHOUSE LANE<br>KENILWORTH                        | DETACHED HOUSES           | WARWICKSHIRE        |
|     | Edge of Town<br>Residential Zone<br>Total No of Dwellings:        | 49                        |                     |
|     | Survey date: FRIDAY                                               | 27/09/19                  | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|     |                                          |                      |                     |
|-----|------------------------------------------|----------------------|---------------------|
| 121 | WM-03-A-04                               | TERRACED HOUSES      | WEST MIDLANDS       |
|     | OSBORNE ROAD                             |                      |                     |
|     | COVENTRY                                 |                      |                     |
|     | EARLSDON                                 |                      |                     |
|     | Neighbourhood Centre (PPS6 Local Centre) |                      |                     |
|     | Residential Zone                         |                      |                     |
|     | Total No of Dwellings:                   |                      | 39                  |
|     | Survey date: MONDAY                      |                      | 21/11/16            |
|     |                                          |                      | Survey Type: MANUAL |
| 122 | WM-03-A-05                               | TERRACED & DETACHED  | WEST MIDLANDS       |
|     | COUNDON ROAD                             |                      |                     |
|     | COVENTRY                                 |                      |                     |
|     | Edge of Town Centre                      |                      |                     |
|     | Residential Zone                         |                      |                     |
|     | Total No of Dwellings:                   |                      | 89                  |
|     | Survey date: MONDAY                      |                      | 21/11/16            |
|     |                                          |                      | Survey Type: MANUAL |
| 123 | WS-03-A-07                               | BUNGALOWS            | WEST SUSSEX         |
|     | EMMS LANE                                |                      |                     |
|     | NEAR HORSHAM                             |                      |                     |
|     | BROOKS GREEN                             |                      |                     |
|     | Neighbourhood Centre (PPS6 Local Centre) |                      |                     |
|     | Village                                  |                      |                     |
|     | Total No of Dwellings:                   |                      | 57                  |
|     | Survey date: THURSDAY                    |                      | 19/10/17            |
|     |                                          |                      | Survey Type: MANUAL |
| 124 | WS-03-A-08                               | MIXED HOUSES         | WEST SUSSEX         |
|     | ROUNDSTONE LANE                          |                      |                     |
|     | ANGMERING                                |                      |                     |
|     | Edge of Town                             |                      |                     |
|     | Residential Zone                         |                      |                     |
|     | Total No of Dwellings:                   |                      | 180                 |
|     | Survey date: THURSDAY                    |                      | 19/04/18            |
|     |                                          |                      | Survey Type: MANUAL |
| 125 | WS-03-A-11                               | MIXED HOUSES         | WEST SUSSEX         |
|     | ELLIS ROAD                               |                      |                     |
|     | WEST HORSHAM                             |                      |                     |
|     | S BROADBRIDGE HEATH                      |                      |                     |
|     | Edge of Town                             |                      |                     |
|     | Residential Zone                         |                      |                     |
|     | Total No of Dwellings:                   |                      | 918                 |
|     | Survey date: TUESDAY                     |                      | 02/04/19            |
|     |                                          |                      | Survey Type: MANUAL |
| 126 | WS-03-A-12                               | MIXED HOUSES         | WEST SUSSEX         |
|     | MADGWICK LANE                            |                      |                     |
|     | CHICHESTER                               |                      |                     |
|     | WESTHAMPNETT                             |                      |                     |
|     | Edge of Town                             |                      |                     |
|     | Village                                  |                      |                     |
|     | Total No of Dwellings:                   |                      | 152                 |
|     | Survey date: WEDNESDAY                   |                      | 16/06/21            |
|     |                                          |                      | Survey Type: MANUAL |
| 127 | WS-03-A-13                               | MIXED HOUSES & FLATS | WEST SUSSEX         |
|     | LITTLEHAMPTON ROAD                       |                      |                     |
|     | WORTHING                                 |                      |                     |
|     | WEST DURRINGTON                          |                      |                     |
|     | Edge of Town                             |                      |                     |
|     | Residential Zone                         |                      |                     |
|     | Total No of Dwellings:                   |                      | 197                 |
|     | Survey date: WEDNESDAY                   |                      | 23/06/21            |
|     |                                          |                      | Survey Type: MANUAL |
| 128 | WS-03-A-14                               | MIXED HOUSES         | WEST SUSSEX         |
|     | TODDINGTON LANE                          |                      |                     |
|     | LITTLEHAMPTON                            |                      |                     |
|     | WICK                                     |                      |                     |
|     | Edge of Town                             |                      |                     |
|     | Residential Zone                         |                      |                     |
|     | Total No of Dwellings:                   |                      | 117                 |
|     | Survey date: WEDNESDAY                   |                      | 20/10/21            |
|     |                                          |                      | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|     |                                          |                          |                     |
|-----|------------------------------------------|--------------------------|---------------------|
| 129 | WS-03-A-15                               | MIXED HOUSES             | WEST SUSSEX         |
|     | HILLAND ROAD                             |                          |                     |
|     | BILLINGSHURST                            |                          |                     |
|     | Neighbourhood Centre (PPS6 Local Centre) |                          |                     |
|     | Village                                  |                          |                     |
|     | Total No of Dwellings:                   | 380                      |                     |
|     | Survey date: TUESDAY                     | 23/11/21                 | Survey Type: MANUAL |
| 130 | WS-03-A-16                               | DETACHED & SEMI-DETACHED | WEST SUSSEX         |
|     | BRACKLESHAM LANE                         |                          |                     |
|     | BRACKLESHAM BAY                          |                          |                     |
|     | Neighbourhood Centre (PPS6 Local Centre) |                          |                     |
|     | Village                                  |                          |                     |
|     | Total No of Dwellings:                   | 58                       |                     |
|     | Survey date: WEDNESDAY                   | 09/11/22                 | Survey Type: MANUAL |
| 131 | WS-03-A-17                               | MIXED HOUSES & FLATS     | WEST SUSSEX         |
|     | SHOPWHYKE ROAD                           |                          |                     |
|     | CHICHESTER                               |                          |                     |
|     | Edge of Town                             |                          |                     |
|     | Residential Zone                         |                          |                     |
|     | Total No of Dwellings:                   | 86                       |                     |
|     | Survey date: WEDNESDAY                   | 01/03/23                 | Survey Type: MANUAL |
| 132 | WS-03-A-18                               | MIXED HOUSES & FLATS     | WEST SUSSEX         |
|     | LONDON ROAD                              |                          |                     |
|     | HASSOCKS                                 |                          |                     |
|     | Neighbourhood Centre (PPS6 Local Centre) |                          |                     |
|     | Village                                  |                          |                     |
|     | Total No of Dwellings:                   | 156                      |                     |
|     | Survey date: MONDAY                      | 15/05/23                 | Survey Type: MANUAL |
| 133 | WS-03-A-19                               | MIXED HOUSES & FLATS     | WEST SUSSEX         |
|     | TURNERS HILL ROAD                        |                          |                     |
|     | EAST GRINSTEAD                           |                          |                     |
|     | Edge of Town                             |                          |                     |
|     | Residential Zone                         |                          |                     |
|     | Total No of Dwellings:                   | 92                       |                     |
|     | Survey date: MONDAY                      | 15/05/23                 | Survey Type: MANUAL |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED  
**MULTI-MODAL TOTAL VEHICLES**  
 Calculation factor: 1 DWELLS  
 BOLD print indicates peak (busiest) period  
 Total People to Total Vehicles ratio (all time periods and directions): 1.70

| Time Range          | ARRIVALS |             |              | DEPARTURES |             |              | TOTALS   |             |              |
|---------------------|----------|-------------|--------------|------------|-------------|--------------|----------|-------------|--------------|
|                     | No. Days | Ave. DWELLS | Trip Rate    | No. Days   | Ave. DWELLS | Trip Rate    | No. Days | Ave. DWELLS | Trip Rate    |
| 00:00 - 01:00       |          |             |              |            |             |              |          |             |              |
| 01:00 - 02:00       |          |             |              |            |             |              |          |             |              |
| 02:00 - 03:00       |          |             |              |            |             |              |          |             |              |
| 03:00 - 04:00       |          |             |              |            |             |              |          |             |              |
| 04:00 - 05:00       |          |             |              |            |             |              |          |             |              |
| 05:00 - 06:00       |          |             |              |            |             |              |          |             |              |
| 06:00 - 07:00       |          |             |              |            |             |              |          |             |              |
| 07:00 - 08:00       | 133      | 139         | 0.074        | 133        | 139         | 0.286        | 133      | 139         | 0.360        |
| 08:00 - 09:00       | 133      | 139         | 0.146        | 133        | 139         | 0.375        | 133      | 139         | 0.521        |
| 09:00 - 10:00       | 133      | 139         | 0.137        | 133        | 139         | 0.165        | 133      | 139         | 0.302        |
| 10:00 - 11:00       | 133      | 139         | 0.121        | 133        | 139         | 0.142        | 133      | 139         | 0.263        |
| 11:00 - 12:00       | 133      | 139         | 0.128        | 133        | 139         | 0.135        | 133      | 139         | 0.263        |
| 12:00 - 13:00       | 133      | 139         | 0.151        | 133        | 139         | 0.148        | 133      | 139         | 0.299        |
| 13:00 - 14:00       | 133      | 139         | 0.154        | 133        | 139         | 0.146        | 133      | 139         | 0.300        |
| 14:00 - 15:00       | 133      | 139         | 0.156        | 133        | 139         | 0.172        | 133      | 139         | 0.328        |
| 15:00 - 16:00       | 133      | 139         | 0.240        | 133        | 139         | 0.166        | 133      | 139         | 0.406        |
| 16:00 - 17:00       | 133      | 139         | 0.262        | 133        | 139         | 0.160        | 133      | 139         | 0.422        |
| 17:00 - 18:00       | 133      | 139         | 0.342        | 133        | 139         | 0.166        | 133      | 139         | 0.508        |
| 18:00 - 19:00       | 133      | 139         | 0.281        | 133        | 139         | 0.157        | 133      | 139         | 0.438        |
| 19:00 - 20:00       | 6        | 59          | 0.148        | 6          | 59          | 0.134        | 6        | 59          | 0.282        |
| 20:00 - 21:00       | 6        | 59          | 0.168        | 6          | 59          | 0.123        | 6        | 59          | 0.291        |
| 21:00 - 22:00       |          |             |              |            |             |              |          |             |              |
| 22:00 - 23:00       |          |             |              |            |             |              |          |             |              |
| 23:00 - 24:00       |          |             |              |            |             |              |          |             |              |
| <b>Total Rates:</b> |          |             | <b>2.508</b> |            |             | <b>2.475</b> |          |             | <b>4.983</b> |

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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#### Parameter summary

|                                               |                     |
|-----------------------------------------------|---------------------|
| Trip rate parameter range selected:           | 6 - 1817 (units: )  |
| Survey date range:                            | 01/01/15 - 04/07/23 |
| Number of weekdays (Monday-Friday):           | 133                 |
| Number of Saturdays:                          | 0                   |
| Number of Sundays:                            | 0                   |
| Surveys automatically removed from selection: | 14                  |
| Surveys manually removed from selection:      | 0                   |

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.70

| Time Range    | ARRIVALS |             |           | DEPARTURES |             |           | TOTALS   |             |           |
|---------------|----------|-------------|-----------|------------|-------------|-----------|----------|-------------|-----------|
|               | No. Days | Ave. DWELLS | Trip Rate | No. Days   | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00 - 01:00 |          |             |           |            |             |           |          |             |           |
| 01:00 - 02:00 |          |             |           |            |             |           |          |             |           |
| 02:00 - 03:00 |          |             |           |            |             |           |          |             |           |
| 03:00 - 04:00 |          |             |           |            |             |           |          |             |           |
| 04:00 - 05:00 |          |             |           |            |             |           |          |             |           |
| 05:00 - 06:00 |          |             |           |            |             |           |          |             |           |
| 06:00 - 07:00 |          |             |           |            |             |           |          |             |           |
| 07:00 - 08:00 | 133      | 139         | 0.107     | 133        | 139         | 0.481     | 133      | 139         | 0.588     |
| 08:00 - 09:00 | 133      | 139         | 0.220     | 133        | 139         | 0.763     | 133      | 139         | 0.983     |
| 09:00 - 10:00 | 133      | 139         | 0.210     | 133        | 139         | 0.277     | 133      | 139         | 0.487     |
| 10:00 - 11:00 | 133      | 139         | 0.188     | 133        | 139         | 0.230     | 133      | 139         | 0.418     |
| 11:00 - 12:00 | 133      | 139         | 0.204     | 133        | 139         | 0.219     | 133      | 139         | 0.423     |
| 12:00 - 13:00 | 133      | 139         | 0.236     | 133        | 139         | 0.229     | 133      | 139         | 0.465     |
| 13:00 - 14:00 | 133      | 139         | 0.243     | 133        | 139         | 0.227     | 133      | 139         | 0.470     |
| 14:00 - 15:00 | 133      | 139         | 0.263     | 133        | 139         | 0.265     | 133      | 139         | 0.528     |
| 15:00 - 16:00 | 133      | 139         | 0.519     | 133        | 139         | 0.281     | 133      | 139         | 0.800     |
| 16:00 - 17:00 | 133      | 139         | 0.491     | 133        | 139         | 0.264     | 133      | 139         | 0.755     |
| 17:00 - 18:00 | 133      | 139         | 0.569     | 133        | 139         | 0.275     | 133      | 139         | 0.844     |
| 18:00 - 19:00 | 133      | 139         | 0.462     | 133        | 139         | 0.266     | 133      | 139         | 0.728     |
| 19:00 - 20:00 | 6        | 59          | 0.427     | 6          | 59          | 0.322     | 6        | 59          | 0.749     |
| 20:00 - 21:00 | 6        | 59          | 0.368     | 6          | 59          | 0.208     | 6        | 59          | 0.576     |
| 21:00 - 22:00 |          |             |           |            |             |           |          |             |           |
| 22:00 - 23:00 |          |             |           |            |             |           |          |             |           |
| 23:00 - 24:00 |          |             |           |            |             |           |          |             |           |
| Total Rates:  |          |             | 4.507     |            |             | 4.307     |          |             | 8.814     |

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

## **Appendix C      Fortfield Rd / College Dr / Development Junction LinSig Results**

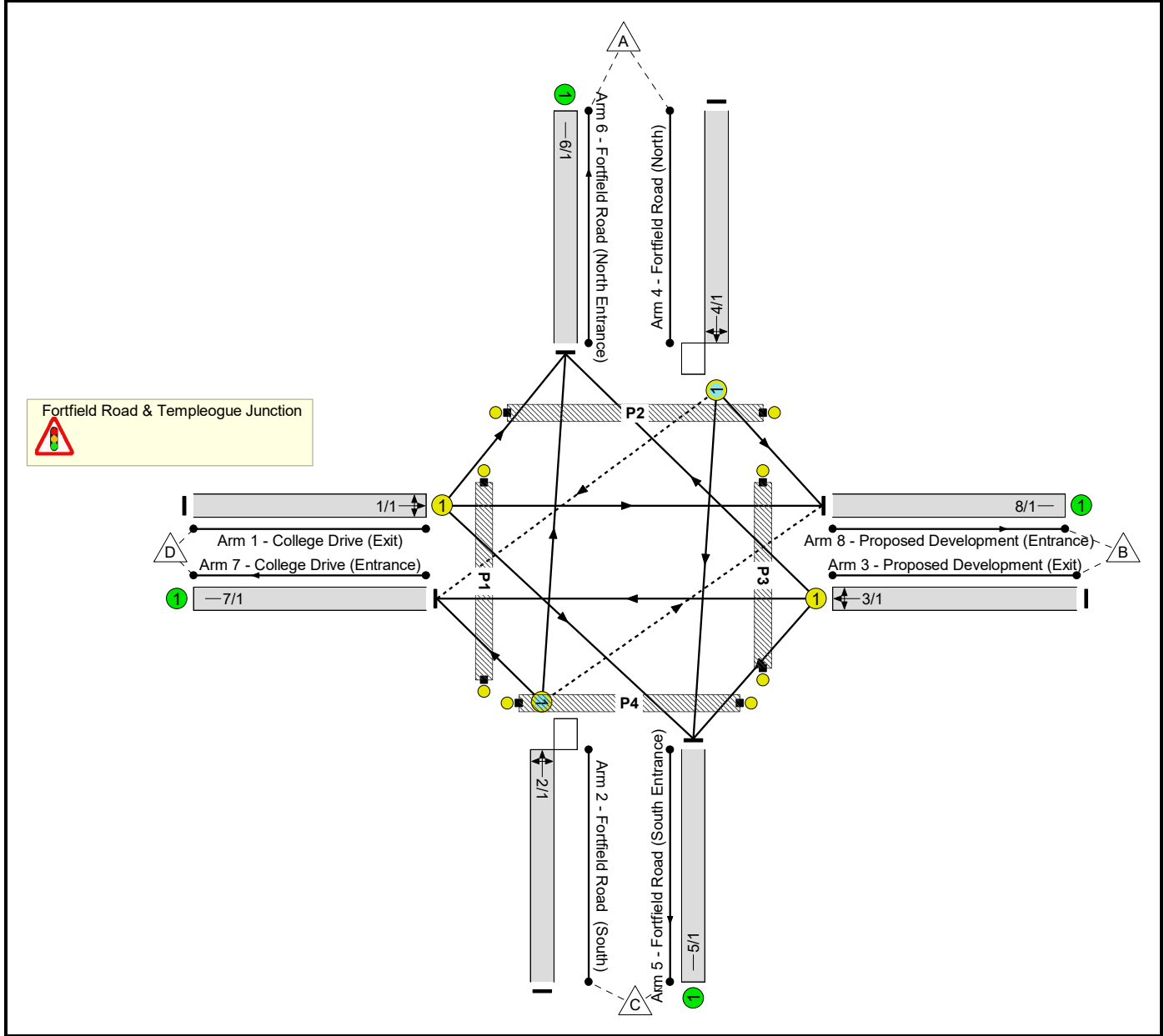
Full Input Data And Results

Full Input Data And Results

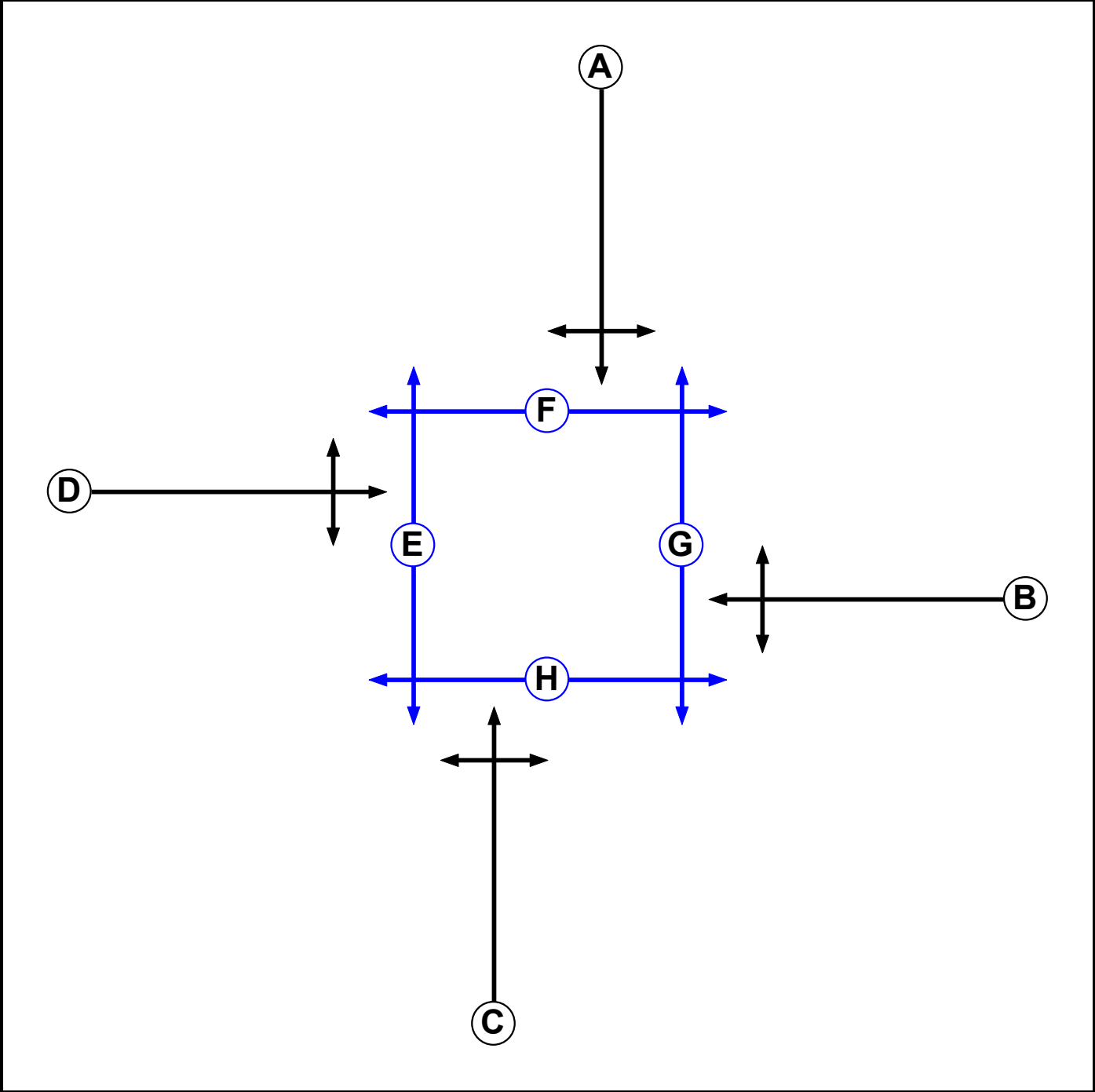
User and Project Details

|                    |                                                                           |
|--------------------|---------------------------------------------------------------------------|
| Project:           | 222102 - Fortfield Road                                                   |
| Title:             | Residential Development, Fortfield Road, Terenure                         |
| Location:          |                                                                           |
| Date Started:      | April 2022                                                                |
| Checked By:        | J Tiernan                                                                 |
| Additional detail: |                                                                           |
| File name:         | 222102 - J1_JPM_2024-08-13.lsg3x                                          |
| Author:            | SOC / JPM                                                                 |
| Company:           | PUNCH Consulting Engineers                                                |
| Address:           | Carnegie House, Library Road, Dun Laoghaire, Co Dublin, A96 C7W7, Ireland |

Network Layout Diagram



Phase Diagram



Phase Input Data

| Phase Name | Phase Type | Assoc. Phase | Street Min | Cont Min |
|------------|------------|--------------|------------|----------|
| A          | Traffic    |              | 7          | 7        |
| B          | Traffic    |              | 7          | 7        |
| C          | Traffic    |              | 7          | 7        |
| D          | Traffic    |              | 7          | 7        |
| E          | Pedestrian |              | 7          | 7        |
| F          | Pedestrian |              | 7          | 7        |
| G          | Pedestrian |              | 7          | 7        |
| H          | Pedestrian |              | 7          | 7        |

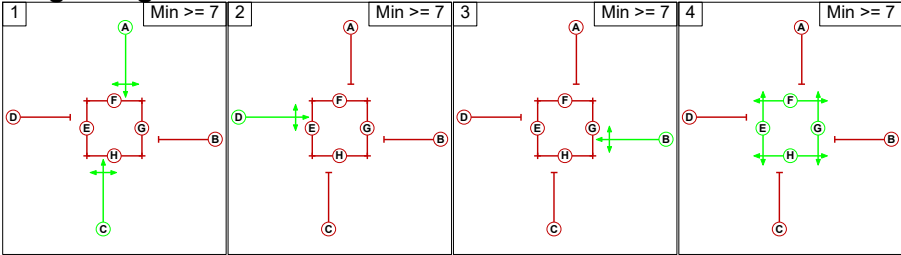
Phase Intergreens Matrix

| Terminating Phase | Starting Phase |    |    |    |    |   |   |   |   |
|-------------------|----------------|----|----|----|----|---|---|---|---|
|                   |                | A  | B  | C  | D  | E | F | G | H |
|                   | A              |    | 5  | -  | 5  | 7 | 5 | 6 | 7 |
|                   | B              | 5  |    | 5  | 5  | 7 | 7 | 5 | 6 |
|                   | C              | -  | 5  |    | 5  | 6 | 7 | 7 | 5 |
|                   | D              | 5  | 6  | 5  |    | 5 | 7 | 7 | 7 |
|                   | E              | 8  | 8  | 8  | 8  |   | - | - | - |
|                   | F              | 11 | 11 | 11 | 11 | - |   | - | - |
|                   | G              | 8  | 8  | 8  | 8  | - | - |   | - |
|                   | H              | 11 | 11 | 11 | 11 | - | - | - |   |

Phases in Stage

| Stage No. | Phases in Stage |
|-----------|-----------------|
| 1         | A C             |
| 2         | D               |
| 3         | B               |
| 4         | E F G H         |

Stage Diagram



Phase Delays

| Term. Stage                       | Start Stage | Phase | Type | Value | Cont value |
|-----------------------------------|-------------|-------|------|-------|------------|
| There are no Phase Delays defined |             |       |      |       |            |

Prohibited Stage Change

|            | To Stage |    |    |    |   |
|------------|----------|----|----|----|---|
| From Stage |          | 1  | 2  | 3  | 4 |
|            | 1        |    | 5  | 5  | 7 |
|            | 2        | 5  |    | 6  | 7 |
|            | 3        | 5  | 5  |    | 7 |
|            | 4        | 11 | 11 | 11 |   |

Full Input Data And Results

**Give-Way Lane Input Data**

| Junction: Fortfield Road && Templeogue Junction |             |                                            |                                            |                  |                     |                 |                             |                                  |      |                           |                                     |
|-------------------------------------------------|-------------|--------------------------------------------|--------------------------------------------|------------------|---------------------|-----------------|-----------------------------|----------------------------------|------|---------------------------|-------------------------------------|
| Lane                                            | Movement    | Max Flow<br>when<br>Giving Way<br>(PCU/Hr) | Min Flow<br>when<br>Giving Way<br>(PCU/Hr) | Opposing<br>Lane | Opp. Lane<br>Coeff. | Opp.<br>Mvmnts. | Right Turn<br>Storage (PCU) | Non-Blocking<br>Storage<br>(PCU) | RTF  | Right Turn<br>Move up (s) | Max Turns<br>in Intergreen<br>(PCU) |
| 2/1<br>(Fortfield Road (South))                 | 8/1 (Right) | 1439                                       | 0                                          | 4/1              | 1.09                | All             | 2.00                        | 2.00                             | 0.50 | 2                         | 2.00                                |
| 4/1<br>(Fortfield Road (North))                 | 7/1 (Right) | 1439                                       | 0                                          | 2/1              | 1.09                | All             | 2.00                        | 2.00                             | 0.50 | 2                         | 2.00                                |

**Lane Input Data**

| Junction: Fortfield Road & Templeogue Junction |           |        |             |           |                       |               |                                   |                |          |               |             |                    |
|------------------------------------------------|-----------|--------|-------------|-----------|-----------------------|---------------|-----------------------------------|----------------|----------|---------------|-------------|--------------------|
| Lane                                           | Lane Type | Phases | Start Disp. | End Disp. | Physical Length (PCU) | Sat Flow Type | Def User Saturation Flow (PCU/Hr) | Lane Width (m) | Gradient | Nearside Lane | Turns       | Turning Radius (m) |
| 1/1<br>(College Drive (Exit))                  | U         | D      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.05           | 0.00     | Y             | Arm 5 Right | 11.80              |
|                                                |           |        |             |           |                       |               |                                   |                |          |               | Arm 6 Left  | 7.70               |
|                                                |           |        |             |           |                       |               |                                   |                |          |               | Arm 8 Ahead | Inf                |
|                                                |           |        |             |           |                       |               |                                   |                |          |               | Arm 6 Ahead | Inf                |
| 2/1<br>(Fortfield Road (South))                | O         | C      | 2           | 3         | 60.0                  | Geom          | -                                 | 5.00           | 0.00     | Y             | Arm 7 Left  | 5.80               |
|                                                |           |        |             |           |                       |               |                                   |                |          |               | Arm 8 Right | 10.00              |
| 3/1<br>(Proposed Development (Exit))           | U         | B      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.00           | 0.00     | Y             | Arm 5 Left  | 6.00               |
|                                                |           |        |             |           |                       |               |                                   |                |          |               | Arm 6 Right | 9.60               |
|                                                |           |        |             |           |                       |               |                                   |                |          |               | Arm 7 Ahead | Inf                |
| 4/1<br>(Fortfield Road (North))                | O         | A      | 2           | 3         | 60.0                  | Geom          | -                                 | 5.00           | 0.00     | Y             | Arm 5 Ahead | Inf                |
|                                                |           |        |             |           |                       |               |                                   |                |          |               | Arm 7 Right | 8.10               |
|                                                |           |        |             |           |                       |               |                                   |                |          |               | Arm 8 Left  | 5.90               |
| 5/1<br>(Fortfield Road (South Entrance))       | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 6/1<br>(Fortfield Road (North Entrance))       | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 7/1<br>(College Drive (Entrance))              | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 8/1<br>(Proposed Development (Entrance))       | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |

## Full Input Data And Results

### Traffic Flow Groups

| Flow Group                | Start Time | End Time | Duration | Formula |
|---------------------------|------------|----------|----------|---------|
| 1: 'Opening Year 2028 AM' | 08:00      | 09:00    | 01:00    |         |
| 2: 'Opening Year 2028 PM' | 17:30      | 18:30    | 01:00    |         |
| 3: 'Design Year 2033 AM'  | 08:00      | 09:00    | 01:00    |         |
| 4: 'Design Year 2033 PM'  | 17:30      | 18:30    | 01:00    |         |
| 5: 'Design Year 2043 AM'  | 08:00      | 09:00    | 01:00    |         |
| 6: 'Design Year 2043 PM'  | 17:30      | 18:30    | 01:00    |         |

### Traffic Flows, Desired

**Scenario 1: 'Opening Year 2028AM'** (FG1: 'Opening Year 2028 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |   |     |     |      |
|--------|-------------|-----|---|-----|-----|------|
|        |             | A   | B | C   | D   | Tot. |
| Origin | A           | 0   | 4 | 352 | 91  | 447  |
|        | B           | 23  | 0 | 21  | 8   | 52   |
|        | C           | 304 | 3 | 0   | 57  | 364  |
|        | D           | 140 | 2 | 61  | 0   | 203  |
|        | Tot.        | 467 | 9 | 434 | 156 | 1066 |

**Scenario 2: 'Opening Year 2028 PM'** (FG2: 'Opening Year 2028 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |    |     |     |      |
|--------|-------------|-----|----|-----|-----|------|
|        |             | A   | B  | C   | D   | Tot. |
| Origin | A           | 0   | 17 | 243 | 77  | 337  |
|        | B           | 7   | 0  | 7   | 3   | 17   |
|        | C           | 235 | 15 | 0   | 45  | 295  |
|        | D           | 61  | 5  | 35  | 0   | 101  |
|        | Tot.        | 303 | 37 | 285 | 125 | 750  |

**Scenario 3: 'Design Year 2033 AM'** (FG3: 'Design Year 2033 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |   |     |     |      |
|--------|-------------|-----|---|-----|-----|------|
|        |             | A   | B | C   | D   | Tot. |
| Origin | A           | 0   | 4 | 369 | 96  | 469  |
|        | B           | 23  | 0 | 21  | 8   | 52   |
|        | C           | 319 | 3 | 0   | 59  | 381  |
|        | D           | 147 | 2 | 64  | 0   | 213  |
|        | Tot.        | 489 | 9 | 454 | 163 | 1115 |

## Full Input Data And Results

**Scenario 4: 'Design Year 2033 PM'** (FG4: 'Design Year 2033 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |    |     |     |      |
|--------|-------------|-----|----|-----|-----|------|
|        |             | A   | B  | C   | D   | Tot. |
| Origin | A           | 0   | 17 | 255 | 81  | 353  |
|        | B           | 7   | 0  | 7   | 3   | 17   |
|        | C           | 246 | 15 | 0   | 47  | 308  |
|        | D           | 64  | 5  | 36  | 0   | 105  |
|        | Tot.        | 317 | 37 | 298 | 131 | 783  |

**Scenario 5: 'Design Year 2043 AM'** (FG5: 'Design Year 2043 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |   |     |     |      |
|--------|-------------|-----|---|-----|-----|------|
|        |             | A   | B | C   | D   | Tot. |
| Origin | A           | 0   | 4 | 388 | 100 | 492  |
|        | B           | 23  | 0 | 21  | 8   | 52   |
|        | C           | 334 | 3 | 0   | 62  | 399  |
|        | D           | 155 | 2 | 67  | 0   | 224  |
|        | Tot.        | 512 | 9 | 476 | 170 | 1167 |

**Scenario 6: 'Design Year 2043 PM'** (FG6: 'Design Year 2043 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |    |     |     |      |
|--------|-------------|-----|----|-----|-----|------|
|        |             | A   | B  | C   | D   | Tot. |
| Origin | A           | 0   | 17 | 267 | 85  | 369  |
|        | B           | 7   | 0  | 7   | 3   | 17   |
|        | C           | 258 | 15 | 0   | 49  | 322  |
|        | D           | 67  | 5  | 38  | 0   | 110  |
|        | Tot.        | 332 | 37 | 312 | 137 | 818  |

## Full Input Data And Results

**Network Results****Scenario 1: 'Opening Year 2028AM'** (FG1: 'Opening Year 2028 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                             | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|----------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | <b>59.1%</b> |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | <b>59.1%</b> |
| 1/1                                                               | College Drive (Exit) Right Left Ahead        | U         | N/A               | N/A                        | D          |             | 1          | 22              | -               | 203               | 1637              | 359            | 56.6%        |
| 2/1                                                               | Fortfield Road (South) Ahead Left Right      | O         | N/A               | N/A                        | C          |             | 1          | 40              | -               | 364               | 2030              | 793            | 45.9%        |
| 3/1                                                               | Proposed Development (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 52                | 1637              | 125            | 41.7%        |
| 4/1                                                               | Fortfield Road (North) Ahead Right Left      | O         | N/A               | N/A                        | A          |             | 1          | 40              | -               | 447               | 2034              | 757            | 59.1%        |
| 5/1                                                               | Fortfield Road (South Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 434               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Fortfield Road (North Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 467               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | College Drive (Entrance)                     | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 156               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Proposed Development (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 9                 | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |
| Ped Link: P2                                                      | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |
| Ped Link: P3                                                      | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |
| Ped Link: P4                                                      | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

[illegible]

## Full Input Data And Results

## Scenario 2: 'Opening Year 2028 PM' (FG2: 'Opening Year 2028 PM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                             | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%) |
|------------------------------------------------------------|----------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|-------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 38.5%       |
| Fortfield Road && Templeogue Junction                      | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 38.5%       |
| 1/1                                                        | College Drive (Exit) Right Left Ahead        | U         | N/A               | N/A                        | D          |             | 1          | 16              | -               | 101               | 1653              | 268            | 37.7%       |
| 2/1                                                        | Fortfield Road (South) Ahead Left Right      | O         | N/A               | N/A                        | C          |             | 1          | 46              | -               | 295               | 2020              | 904            | 32.6%       |
| 3/1                                                        | Proposed Development (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 17                | 1641              | 125            | 13.6%       |
| 4/1                                                        | Fortfield Road (North) Ahead Right Left      | O         | N/A               | N/A                        | A          |             | 1          | 46              | -               | 337               | 2004              | 875            | 38.5%       |
| 5/1                                                        | Fortfield Road (South Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 285               | Inf               | Inf            | 0.0%        |
| 6/1                                                        | Fortfield Road (North Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 303               | Inf               | Inf            | 0.0%        |
| 7/1                                                        | College Drive (Entrance)                     | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 125               | Inf               | Inf            | 0.0%        |
| 8/1                                                        | Proposed Development (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 37                | Inf               | Inf            | 0.0%        |
| Ped Link: P1                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P2                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P3                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P4                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |

## Full Input Data And Results

[illegible]

## Full Input Data And Results

## Scenario 3: 'Design Year 2033 AM' (FG3: 'Design Year 2033 AM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                             | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%) |
|------------------------------------------------------------|----------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|-------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 62.1%       |
| Fortfield Road && Templeogue Junction                      | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 62.1%       |
| 1/1                                                        | College Drive (Exit) Right Left Ahead        | U         | N/A               | N/A                        | D          |             | 1          | 21              | -               | 213               | 1637              | 343            | 62.1%       |
| 2/1                                                        | Fortfield Road (South) Ahead Left Right      | O         | N/A               | N/A                        | C          |             | 1          | 41              | -               | 381               | 2031              | 812            | 46.9%       |
| 3/1                                                        | Proposed Development (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 52                | 1637              | 125            | 41.7%       |
| 4/1                                                        | Fortfield Road (North) Ahead Right Left      | O         | N/A               | N/A                        | A          |             | 1          | 41              | -               | 469               | 2034              | 776            | 60.5%       |
| 5/1                                                        | Fortfield Road (South Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 454               | Inf               | Inf            | 0.0%        |
| 6/1                                                        | Fortfield Road (North Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 489               | Inf               | Inf            | 0.0%        |
| 7/1                                                        | College Drive (Entrance)                     | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 163               | Inf               | Inf            | 0.0%        |
| 8/1                                                        | Proposed Development (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 9                 | Inf               | Inf            | 0.0%        |
| Ped Link: P1                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P2                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P3                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P4                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |

## Full Input Data And Results

| Item                                                                                                                                                                                                 | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                           | -              | -             | 99                    | 0                            | 0                           | 8.6                   | 2.4                          | 0.2                                | 11.2                | -                         | -                                | -                          | -                    |
| Fortfield Road && Templeogue Junction                                                                                                                                                                | -              | -             | 99                    | 0                            | 0                           | 8.6                   | 2.4                          | 0.2                                | 11.2                | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                  | 213            | 213           | -                     | -                            | -                           | 2.2                   | 0.8                          | -                                  | 3.0                 | 51.4                      | 5.6                              | 0.8                        | 6.4                  |
| 2/1                                                                                                                                                                                                  | 381            | 381           | 3                     | 0                            | 0                           | 2.5                   | 0.4                          | 0.0                                | 2.9                 | 27.5                      | 8.1                              | 0.4                        | 8.6                  |
| 3/1                                                                                                                                                                                                  | 52             | 52            | -                     | -                            | -                           | 0.7                   | 0.4                          | -                                  | 1.0                 | 70.8                      | 1.4                              | 0.4                        | 1.8                  |
| 4/1                                                                                                                                                                                                  | 469            | 469           | 96                    | 0                            | 0                           | 3.2                   | 0.8                          | 0.2                                | 4.2                 | 32.1                      | 10.9                             | 0.8                        | 11.7                 |
| 5/1                                                                                                                                                                                                  | 454            | 454           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                  | 489            | 489           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                  | 163            | 163           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                  | 9              | 9             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| Ped Link: P1                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P2                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P3                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P4                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| C1      PRC for Signalled Lanes (%): 44.9      Total Delay for Signalled Lanes (pcuHr): 11.16      Cycle Time (s): 105<br>PRC Over All Lanes (%): 44.9      Total Delay Over All Lanes(pcuHr): 11.16 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

## Full Input Data And Results

## Scenario 4: 'Design Year 2033 PM' (FG4: 'Design Year 2033 PM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                             | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%) |
|------------------------------------------------------------|----------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|-------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 40.3%       |
| Fortfield Road && Templeogue Junction                      | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 40.3%       |
| 1/1                                                        | College Drive (Exit) Right Left Ahead        | U         | N/A               | N/A                        | D          |             | 1          | 16              | -               | 105               | 1652              | 267            | 39.3%       |
| 2/1                                                        | Fortfield Road (South) Ahead Left Right      | O         | N/A               | N/A                        | C          |             | 1          | 46              | -               | 308               | 2021              | 905            | 34.0%       |
| 3/1                                                        | Proposed Development (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 17                | 1641              | 125            | 13.6%       |
| 4/1                                                        | Fortfield Road (North) Ahead Right Left      | O         | N/A               | N/A                        | A          |             | 1          | 46              | -               | 353               | 2005              | 875            | 40.3%       |
| 5/1                                                        | Fortfield Road (South Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 298               | Inf               | Inf            | 0.0%        |
| 6/1                                                        | Fortfield Road (North Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 317               | Inf               | Inf            | 0.0%        |
| 7/1                                                        | College Drive (Entrance)                     | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 131               | Inf               | Inf            | 0.0%        |
| 8/1                                                        | Proposed Development (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 37                | Inf               | Inf            | 0.0%        |
| Ped Link: P1                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P2                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P3                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P4                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |

## Full Input Data And Results

[illegible]

## Full Input Data And Results

## Scenario 5: 'Design Year 2043 AM' (FG5: 'Design Year 2043 AM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                             | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%) |
|------------------------------------------------------------|----------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|-------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 65.3%       |
| Fortfield Road && Templeogue Junction                      | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 65.3%       |
| 1/1                                                        | College Drive (Exit) Right Left Ahead        | U         | N/A               | N/A                        | D          |             | 1          | 21              | -               | 224               | 1637              | 343            | 65.3%       |
| 2/1                                                        | Fortfield Road (South) Ahead Left Right      | O         | N/A               | N/A                        | C          |             | 1          | 41              | -               | 399               | 2031              | 812            | 49.1%       |
| 3/1                                                        | Proposed Development (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 52                | 1637              | 125            | 41.7%       |
| 4/1                                                        | Fortfield Road (North) Ahead Right Left      | O         | N/A               | N/A                        | A          |             | 1          | 41              | -               | 492               | 2034              | 768            | 64.1%       |
| 5/1                                                        | Fortfield Road (South Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 476               | Inf               | Inf            | 0.0%        |
| 6/1                                                        | Fortfield Road (North Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 512               | Inf               | Inf            | 0.0%        |
| 7/1                                                        | College Drive (Entrance)                     | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 170               | Inf               | Inf            | 0.0%        |
| 8/1                                                        | Proposed Development (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 9                 | Inf               | Inf            | 0.0%        |
| Ped Link: P1                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P2                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P3                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P4                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                 | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                           | -              | -             | 103                   | 0                            | 0                           | 9.1                   | 2.6                          | 0.2                                | 12.0                | -                         | -                                | -                          | -                    |
| Fortfield Road && Templeogue Junction                                                                                                                                                                                                                | -              | -             | 103                   | 0                            | 0                           | 9.1                   | 2.6                          | 0.2                                | 12.0                | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                  | 224            | 224           | -                     | -                            | -                           | 2.4                   | 0.9                          | -                                  | 3.3                 | 52.9                      | 6.0                              | 0.9                        | 6.9                  |
| 2/1                                                                                                                                                                                                                                                  | 399            | 399           | 3                     | 0                            | 0                           | 2.6                   | 0.5                          | 0.0                                | 3.1                 | 27.9                      | 8.6                              | 0.5                        | 9.1                  |
| 3/1                                                                                                                                                                                                                                                  | 52             | 52            | -                     | -                            | -                           | 0.7                   | 0.4                          | -                                  | 1.0                 | 70.8                      | 1.4                              | 0.4                        | 1.8                  |
| 4/1                                                                                                                                                                                                                                                  | 492            | 492           | 100                   | 0                            | 0                           | 3.5                   | 0.9                          | 0.2                                | 4.6                 | 33.3                      | 11.8                             | 0.9                        | 12.6                 |
| 5/1                                                                                                                                                                                                                                                  | 476            | 476           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                  | 512            | 512           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                  | 170            | 170           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                  | 9              | 9             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| Ped Link: P1                                                                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P2                                                                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P3                                                                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P4                                                                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| C1                  PRC for Signalled Lanes (%): 37.8                  Total Delay for Signalled Lanes (pcuHr): 11.97                  Cycle Time (s): 105<br>PRC Over All Lanes (%): 37.8                  Total Delay Over All Lanes(pcuHr): 11.97 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

## Full Input Data And Results

## Scenario 6: 'Design Year 2043 PM' (FG6: 'Design Year 2043 PM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                             | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%) |
|------------------------------------------------------------|----------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|-------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 42.4%       |
| Fortfield Road && Templeogue Junction                      | -                                            | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 42.4%       |
| 1/1                                                        | College Drive (Exit) Right Left Ahead        | U         | N/A               | N/A                        | D          |             | 1          | 16              | -               | 110               | 1652              | 267            | 41.1%       |
| 2/1                                                        | Fortfield Road (South) Ahead Left Right      | O         | N/A               | N/A                        | C          |             | 1          | 46              | -               | 322               | 2021              | 905            | 35.6%       |
| 3/1                                                        | Proposed Development (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 17                | 1641              | 125            | 13.6%       |
| 4/1                                                        | Fortfield Road (North) Ahead Right Left      | O         | N/A               | N/A                        | A          |             | 1          | 46              | -               | 369               | 2006              | 870            | 42.4%       |
| 5/1                                                        | Fortfield Road (South Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 312               | Inf               | Inf            | 0.0%        |
| 6/1                                                        | Fortfield Road (North Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 332               | Inf               | Inf            | 0.0%        |
| 7/1                                                        | College Drive (Entrance)                     | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 137               | Inf               | Inf            | 0.0%        |
| 8/1                                                        | Proposed Development (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 37                | Inf               | Inf            | 0.0%        |
| Ped Link: P1                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P2                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P3                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |
| Ped Link: P4                                               | Unnamed Ped Link                             | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%        |

## Full Input Data And Results

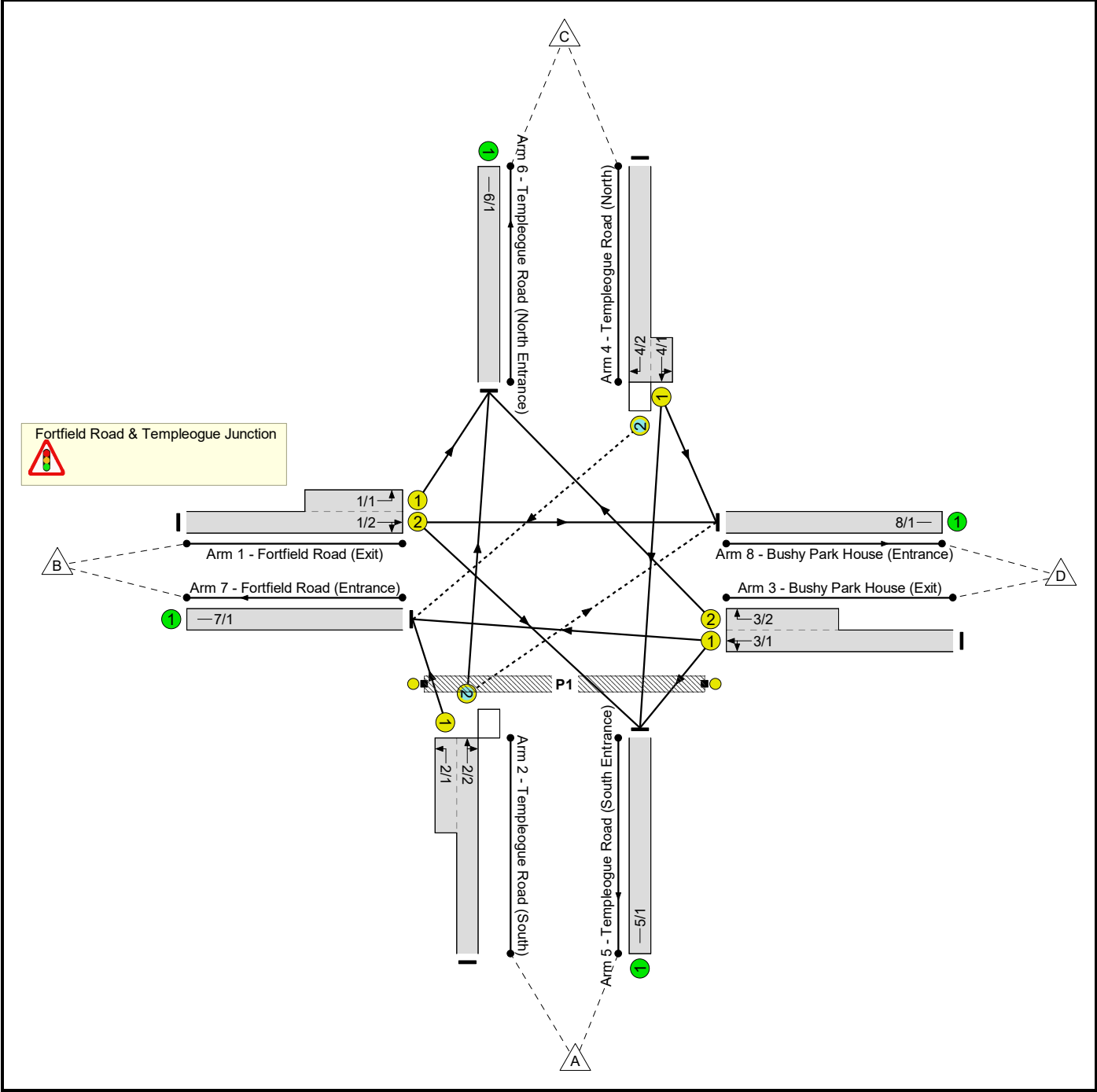
| Item                                                                                                                                                                                                                                                 | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                           | -              | -             | 100                   | 0                            | 0                           | 5.1                   | 1.1                          | 0.2                                | 6.4                 | -                         | -                                | -                          | -                    |
| Fortfield Road && Templeogue Junction                                                                                                                                                                                                                | -              | -             | 100                   | 0                            | 0                           | 5.1                   | 1.1                          | 0.2                                | 6.4                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                  | 110            | 110           | -                     | -                            | -                           | 1.2                   | 0.3                          | -                                  | 1.6                 | 50.9                      | 2.9                              | 0.3                        | 3.2                  |
| 2/1                                                                                                                                                                                                                                                  | 322            | 322           | 15                    | 0                            | 0                           | 1.7                   | 0.3                          | 0.0                                | 2.0                 | 22.6                      | 6.1                              | 0.3                        | 6.4                  |
| 3/1                                                                                                                                                                                                                                                  | 17             | 17            | -                     | -                            | -                           | 0.2                   | 0.1                          | -                                  | 0.3                 | 61.9                      | 0.5                              | 0.1                        | 0.5                  |
| 4/1                                                                                                                                                                                                                                                  | 369            | 369           | 85                    | 0                            | 0                           | 2.0                   | 0.4                          | 0.1                                | 2.5                 | 24.4                      | 7.3                              | 0.4                        | 7.6                  |
| 5/1                                                                                                                                                                                                                                                  | 312            | 312           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                  | 332            | 332           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                  | 137            | 137           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                  | 37             | 37            | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| Ped Link: P1                                                                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P2                                                                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P3                                                                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| Ped Link: P4                                                                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| C1                  PRC for Signalled Lanes (%): 112.3                  Total Delay for Signalled Lanes (pcuHr): 6.36                  Cycle Time (s): 105<br>PRC Over All Lanes (%): 112.3                  Total Delay Over All Lanes(pcuHr): 6.36 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

## **Appendix D      Fortfield Road / Templeogue / Bushy Park House LinSig Results**

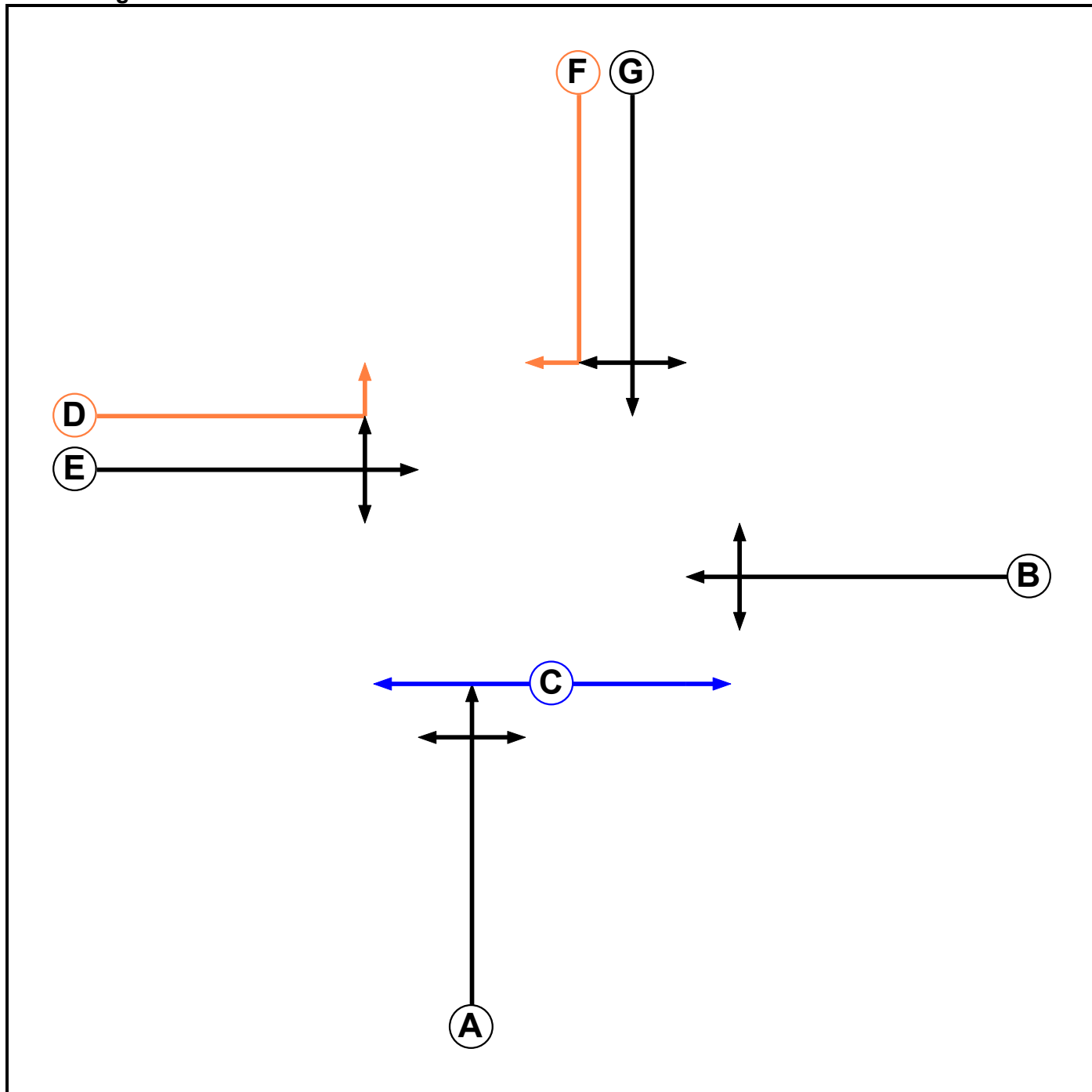
**Full Input Data And Results****User and Project Details**

|                           |                                                                           |
|---------------------------|---------------------------------------------------------------------------|
| <b>Project:</b>           | <b>222102 - Fortfield Road</b>                                            |
| <b>Title:</b>             | <b>Residential Development, Fortfield Road, Terenure</b>                  |
| <b>Location:</b>          |                                                                           |
| <b>Date Started:</b>      | April 2022                                                                |
| <b>Checked By:</b>        | J Tiernan                                                                 |
| <b>Additional detail:</b> |                                                                           |
| <b>File name:</b>         | 222102 - J2_JPM_24-08-13.lsg3x                                            |
| <b>Author:</b>            | JPM / SOC                                                                 |
| <b>Company:</b>           | PUNCH Consulting Engineers                                                |
| <b>Address:</b>           | Carnegie House, Library Road, Dun Laoghaire, Co Dublin, A96 C7W7, Ireland |

Network Layout Diagram



## Phase Diagram



## Phase Input Data

| Phase Name | Phase Type                         | Assoc. Phase | Street Min | Cont Min |
|------------|------------------------------------|--------------|------------|----------|
| A          | Traffic                            |              | 7          | 7        |
| B          | Traffic                            |              | 7          | 7        |
| C          | Pedestrian                         |              | 7          | 7        |
| D          | Filter with Closing Amber (Not UK) |              | 4          | 4        |
| E          | Traffic                            |              | 7          | 7        |
| F          | Filter with Closing Amber (Not UK) |              | 4          | 4        |
| G          | Traffic                            |              | 7          | 7        |

Full Input Data And Results

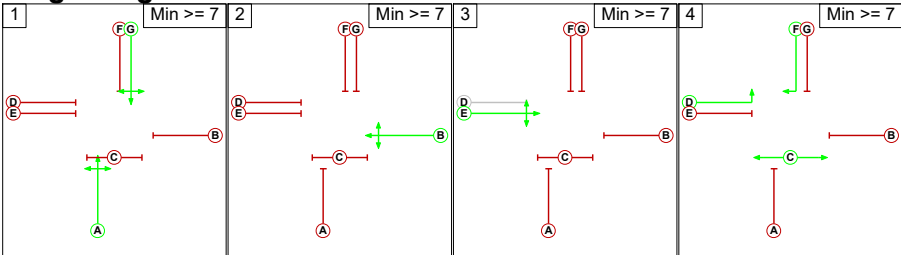
Phase Intergreens Matrix

| Terminating Phase | Starting Phase |    |    |   |   |    |   |    |
|-------------------|----------------|----|----|---|---|----|---|----|
|                   |                | A  | B  | C | D | E  | F | G  |
|                   | A              |    | 6  | 5 | 7 | 7  | 6 | -  |
|                   | B              | 5  |    | 6 | 6 | 6  | 5 | 5  |
|                   | C              | 14 | 14 |   | - | 14 | - | 14 |
|                   | D              | 5  | 5  | - |   | -  | - | -  |
|                   | E              | 5  | 7  | 9 | - |    | 5 | 6  |
|                   | F              | 5  | 7  | - | - | 5  |   | -  |
|                   | G              | -  | 7  | 9 | - | 5  | - |    |

Phases in Stage

| Stage No. | Phases in Stage |
|-----------|-----------------|
| 1         | A G             |
| 2         | B               |
| 3         | E               |
| 4         | C D F           |

Stage Diagram



Phase Delays

| Term. Stage                       | Start Stage | Phase | Type | Value | Cont value |
|-----------------------------------|-------------|-------|------|-------|------------|
| There are no Phase Delays defined |             |       |      |       |            |

Prohibited Stage Change

| From Stage | To Stage |    |    |    |   |
|------------|----------|----|----|----|---|
|            |          | 1  | 2  | 3  | 4 |
|            | 1        |    | 7  | 7  | 9 |
|            | 2        | 5  |    | 6  | 6 |
|            | 3        | 6  | 7  |    | 9 |
|            | 4        | 14 | 14 | 14 |   |

Full Input Data And Results

**Give-Way Lane Input Data**

| Junction: Fortfield Road && Templeogue Junction |             |                                   |                                   |               |                  |                |                          |                            |      |                        |                               |
|-------------------------------------------------|-------------|-----------------------------------|-----------------------------------|---------------|------------------|----------------|--------------------------|----------------------------|------|------------------------|-------------------------------|
| Lane                                            | Movement    | Max Flow when Giving Way (PCU/Hr) | Min Flow when Giving Way (PCU/Hr) | Opposing Lane | Opp. Lane Coeff. | Opp. Mvmnts.   | Right Turn Storage (PCU) | Non-Blocking Storage (PCU) | RTF  | Right Turn Move up (s) | Max Turns in Intergreen (PCU) |
| 2/2<br>(Templeogue Road (South))                | 8/1 (Right) | 1439                              | 0                                 | 4/1           | 1.09             | All            | 2.00                     | 2.00                       | 0.50 | 2                      | 2.00                          |
| 4/2<br>(Templeogue Road (North))                | 7/1 (Right) | 1439                              | 0                                 | 2/1           | 1.09             | All            | 2.00                     | -                          | 0.50 | 2                      | 2.00                          |
|                                                 |             |                                   |                                   | 2/2           | 1.09             | To 6/1 (Ahead) |                          |                            |      |                        |                               |

**Lane Input Data**

| Junction: Fortfield Road && Templeogue Junction |           |        |             |           |                       |               |                                   |                |          |               |             |                    |
|-------------------------------------------------|-----------|--------|-------------|-----------|-----------------------|---------------|-----------------------------------|----------------|----------|---------------|-------------|--------------------|
| Lane                                            | Lane Type | Phases | Start Disp. | End Disp. | Physical Length (PCU) | Sat Flow Type | Def User Saturation Flow (PCU/Hr) | Lane Width (m) | Gradient | Nearside Lane | Turns       | Turning Radius (m) |
| 1/1<br>(Fortfield Road (Exit))                  | U         | E D    | 2           | 3         | 6.8                   | Geom          | -                                 | 2.75           | 0.00     | Y             | Arm 6 Left  | 6.40               |
| 1/2<br>(Fortfield Road (Exit))                  | U         | E      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.00           | 0.00     | Y             | Arm 5 Right | 13.00              |
|                                                 |           |        |             |           |                       |               |                                   |                |          |               | Arm 8 Ahead | Inf                |
| 2/1<br>(Templeogue Road (South))                | U         | A      | 2           | 3         | 6.6                   | Geom          | -                                 | 2.75           | 0.00     | Y             | Arm 7 Left  | 11.13              |
| 2/2<br>(Templeogue Road (South))                | O         | A      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.40           | 0.00     | Y             | Arm 6 Ahead | Inf                |
| 3/1<br>(Bushy Park House (Exit))                | U         | B      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.00           | 0.00     | Y             | Arm 8 Right | 8.90               |
|                                                 |           |        |             |           |                       |               |                                   |                |          |               | Arm 5 Left  | 6.30               |
| 3/2<br>(Bushy Park House (Exit))                | U         | B      | 2           | 3         | 7.8                   | Geom          | -                                 | 4.00           | 0.00     | Y             | Arm 7 Ahead | Inf                |
| 4/1<br>(Templeogue Road (North))                | U         | G      | 2           | 3         | 3.1                   | Geom          | -                                 | 3.75           | 0.00     | Y             | Arm 6 Right | 15.00              |
| 4/2<br>(Templeogue Road (North))                | O         | G F    | 2           | 3         | 60.0                  | Geom          | -                                 | 3.75           | 0.00     | Y             | Arm 5 Ahead | Inf                |
|                                                 |           |        |             |           |                       |               |                                   |                |          |               | Arm 8 Left  | 10.00              |
| 5/1<br>(Templeogue Road (South Entrance))       | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | Arm 7 Right | 15.50              |
| 6/1<br>(Templeogue Road (North Entrance))       | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 7/1<br>(Fortfield Road (Entrance))              | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 8/1<br>(Bushy Park House (Entrance))            | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |

Traffic Flow Groups

| Flow Group                 | Start Time | End Time | Duration | Formula |
|----------------------------|------------|----------|----------|---------|
| 1: 'Survey Year 2024 AM'   | 08:00      | 09:00    | 01:00    |         |
| 2: 'Survey Year 2024 PM'   | 17:45      | 18:45    | 01:00    |         |
| 3: 'Do Nothing 2028 AM'    | 08:00      | 09:00    | 01:00    |         |
| 4: 'Do Nothing 2028 PM'    | 17:45      | 18:45    | 01:00    |         |
| 5: 'Do Nothing 2033 AM'    | 08:00      | 09:00    | 01:00    |         |
| 6: 'Do Nothing 2033 PM'    | 17:45      | 18:45    | 01:00    |         |
| 7: 'Do Nothing 2043 AM'    | 08:00      | 09:00    | 01:00    |         |
| 8: 'Do Nothing 2043 PM'    | 17:45      | 18:45    | 01:00    |         |
| 9: 'Opening Year 2028 AM'  | 08:00      | 09:00    | 01:00    |         |
| 10: 'Opening Year 2028 PM' | 17:45      | 18:45    | 01:00    |         |
| 11: 'Design Year 2033 AM'  | 08:00      | 09:00    | 01:00    |         |
| 12: 'Design Year 2033 PM'  | 17:45      | 18:45    | 01:00    |         |
| 13: 'Design Year 2043 AM'  | 08:00      | 09:00    | 01:00    |         |
| 14: 'Design Year 2043 PM'  | 17:45      | 18:45    | 01:00    |         |

Traffic Flows, Desired

Scenario 1: 'Survey Year 2024 AM' (FG1: 'Survey Year 2024 AM', Plan 1: 'Network Control Plan 1')

Desired Flow :

| Origin | Destination |     |     |     |     |      |
|--------|-------------|-----|-----|-----|-----|------|
|        |             | A   | B   | C   | D   | Tot. |
|        | A           | 0   | 121 | 451 | 58  | 630  |
|        | B           | 169 | 0   | 192 | 90  | 451  |
|        | C           | 329 | 62  | 0   | 14  | 405  |
|        | D           | 75  | 64  | 39  | 0   | 178  |
|        | Tot.        | 573 | 247 | 682 | 162 | 1664 |

## Full Input Data And Results

**Scenario 2: 'Survey Year 2024 PM'** (FG2: 'Survey Year 2024 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 95  | 503 | 38 | 636  |
|        | B           | 171 | 0   | 119 | 22 | 312  |
|        | C           | 445 | 120 | 0   | 15 | 580  |
|        | D           | 20  | 21  | 10  | 0  | 51   |
|        | Tot.        | 636 | 236 | 632 | 75 | 1579 |

**Scenario 3: 'Do Nothing 2028 AM'** (FG3: 'Do Nothing 2028 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |     |      |
|--------|-------------|-----|-----|-----|-----|------|
|        |             | A   | B   | C   | D   | Tot. |
| Origin | A           | 0   | 129 | 481 | 62  | 672  |
|        | B           | 180 | 0   | 205 | 96  | 481  |
|        | C           | 351 | 66  | 0   | 15  | 432  |
|        | D           | 80  | 68  | 42  | 0   | 190  |
|        | Tot.        | 611 | 263 | 728 | 173 | 1775 |

**Scenario 4: 'Do Nothing 2028 PM'** (FG4: 'Do Nothing 2028 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 101 | 536 | 41 | 678  |
|        | B           | 183 | 0   | 126 | 24 | 333  |
|        | C           | 474 | 128 | 0   | 16 | 618  |
|        | D           | 21  | 22  | 11  | 0  | 54   |
|        | Tot.        | 678 | 251 | 673 | 81 | 1683 |

**Scenario 5: 'Do Nothing 2033 AM'** (FG5: 'Do Nothing 2033 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |     |      |
|--------|-------------|-----|-----|-----|-----|------|
|        |             | A   | B   | C   | D   | Tot. |
| Origin | A           | 0   | 135 | 504 | 65  | 704  |
|        | B           | 189 | 0   | 215 | 100 | 504  |
|        | C           | 368 | 69  | 0   | 16  | 453  |
|        | D           | 84  | 72  | 44  | 0   | 200  |
|        | Tot.        | 641 | 276 | 763 | 181 | 1861 |

## Full Input Data And Results

### Scenario 6: 'Do Nothing 2033 PM' (FG6: 'Do Nothing 2033 PM', Plan 1: 'Network Control Plan 1')

#### Desired Flow :

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 106 | 562 | 43 | 711  |
|        | B           | 191 | 0   | 133 | 25 | 349  |
|        | C           | 497 | 134 | 0   | 17 | 648  |
|        | D           | 22  | 23  | 11  | 0  | 56   |
|        | Tot.        | 710 | 263 | 706 | 85 | 1764 |

### Scenario 7: 'Do Nothing 2043 AM' (FG7: 'Do Nothing 2043 AM', Plan 1: 'Network Control Plan 1')

#### Desired Flow :

|        | Destination |     |     |     |     |      |
|--------|-------------|-----|-----|-----|-----|------|
|        |             | A   | B   | C   | D   | Tot. |
| Origin | A           | 0   | 142 | 529 | 68  | 739  |
|        | B           | 198 | 0   | 225 | 105 | 528  |
|        | C           | 386 | 72  | 0   | 17  | 475  |
|        | D           | 88  | 75  | 46  | 0   | 209  |
|        | Tot.        | 672 | 289 | 800 | 190 | 1951 |

### Scenario 8: 'Do Nothing 2043 PM' (FG8: 'Do Nothing 2043 PM', Plan 1: 'Network Control Plan 1')

#### Desired Flow :

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 111 | 590 | 45 | 746  |
|        | B           | 201 | 0   | 139 | 26 | 366  |
|        | C           | 522 | 140 | 0   | 18 | 680  |
|        | D           | 23  | 25  | 12  | 0  | 60   |
|        | Tot.        | 746 | 276 | 741 | 89 | 1852 |

### Scenario 9: 'Opening Year 2028 AM' (FG9: 'Opening Year 2028 AM', Plan 1: 'Network Control Plan 1')

#### Desired Flow :

|        | Destination |     |     |     |     |      |
|--------|-------------|-----|-----|-----|-----|------|
|        |             | A   | B   | C   | D   | Tot. |
| Origin | A           | 0   | 131 | 481 | 62  | 674  |
|        | B           | 188 | 0   | 214 | 100 | 502  |
|        | C           | 351 | 67  | 0   | 15  | 433  |
|        | D           | 80  | 69  | 42  | 0   | 191  |
|        | Tot.        | 619 | 267 | 737 | 177 | 1800 |

## Full Input Data And Results

**Scenario 10: 'Opening Year 2028 PM'** (FG10: 'Opening Year 2028 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 107 | 536 | 41 | 684  |
|        | B           | 186 | 0   | 129 | 24 | 339  |
|        | C           | 474 | 135 | 0   | 16 | 625  |
|        | D           | 21  | 24  | 11  | 0  | 56   |
|        | Tot.        | 681 | 266 | 676 | 81 | 1704 |

**Scenario 11: 'Design Year 2033 AM'** (FG11: 'Design Year 2033 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |     |      |
|--------|-------------|-----|-----|-----|-----|------|
|        |             | A   | B   | C   | D   | Tot. |
| Origin | A           | 0   | 137 | 504 | 65  | 706  |
|        | B           | 197 | 0   | 224 | 104 | 525  |
|        | C           | 368 | 70  | 0   | 16  | 454  |
|        | D           | 84  | 72  | 44  | 0   | 200  |
|        | Tot.        | 649 | 279 | 772 | 185 | 1885 |

**Scenario 12: 'Design Year 2033 PM'** (FG12: 'Design Year 2033 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 112 | 562 | 43 | 717  |
|        | B           | 195 | 0   | 135 | 25 | 355  |
|        | C           | 497 | 141 | 0   | 17 | 655  |
|        | D           | 22  | 25  | 11  | 0  | 58   |
|        | Tot.        | 714 | 278 | 708 | 85 | 1785 |

**Scenario 13: 'Design Year 2043 AM'** (FG13: 'Design Year 2043 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |     |      |
|--------|-------------|-----|-----|-----|-----|------|
|        |             | A   | B   | C   | D   | Tot. |
| Origin | A           | 0   | 144 | 529 | 68  | 741  |
|        | B           | 206 | 0   | 234 | 109 | 549  |
|        | C           | 386 | 73  | 0   | 17  | 476  |
|        | D           | 88  | 76  | 46  | 0   | 210  |
|        | Tot.        | 680 | 293 | 809 | 194 | 1976 |

Full Input Data And Results

**Scenario 14: 'Design Year 2044 PM'** (FG14: 'Design Year 2043 PM', Plan 1: 'Network Control Plan 1')  
**Desired Flow :**

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
| Origin |             | A   | B   | C   | D  | Tot. |
|        | A           | 0   | 117 | 590 | 45 | 752  |
|        | B           | 205 | 0   | 142 | 27 | 374  |
|        | C           | 522 | 148 | 0   | 18 | 688  |
|        | D           | 23  | 26  | 12  | 0  | 61   |
|        | Tot.        | 750 | 291 | 744 | 90 | 1875 |

Full Input Data And Results

Network Results

Scenario 1: 'Survey Year 2024 AM' (FG1: 'Survey Year 2024 AM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 85.9%        |
| Fortfield Road && Templeogue Junction                      | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 85.9%        |
| 1/2+1/1                                                    | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 24:38           | 14              | 451               | 1781:1531         | 302+224        | 85.7 : 85.7% |
| 2/2+2/1                                                    | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 42              | -               | 630               | 1918:1666         | 593+141        | 85.9 : 85.9% |
| 3/1+3/2                                                    | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 11              | -               | 178               | 1697:1832         | 170+48         | 81.9 : 81.9% |
| 4/2+4/1                                                    | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 53:42           | 11              | 405               | 1814:1978         | 109+604        | 56.8 : 56.8% |
| 5/1                                                        | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 573               | Inf               | Inf            | 0.0%         |
| 6/1                                                        | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 682               | Inf               | Inf            | 0.0%         |
| 7/1                                                        | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 247               | Inf               | Inf            | 0.0%         |
| 8/1                                                        | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 162               | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                               | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

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Full Input Data And Results

Scenario 2: 'Survey Year 2024 PM' (FG2: 'Survey Year 2024 PM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 73.2%        |
| Fortfield Road && Templeogue Junction                      | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 73.2%        |
| 1/2+1/1                                                    | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 19:33           | 14              | 312               | 1737:1531         | 266+164        | 72.5 : 72.5% |
| 2/2+2/1                                                    | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 51              | -               | 636               | 1932:1666         | 739+130        | 73.2 : 73.2% |
| 3/1+3/2                                                    | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 51                | 1716:1832         | 114+28         | 35.8 : 35.8% |
| 4/2+4/1                                                    | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 62:51           | 11              | 580               | 1814:1980         | 181+696        | 66.1 : 66.1% |
| 5/1                                                        | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 636               | Inf               | Inf            | 0.0%         |
| 6/1                                                        | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 632               | Inf               | Inf            | 0.0%         |
| 7/1                                                        | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 236               | Inf               | Inf            | 0.0%         |
| 8/1                                                        | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 75                | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                               | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

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# Full Input Data And Results

## Scenario 3: 'Do Nothing 2028 AM' (FG3: 'Do Nothing 2028 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 91.6%        |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 91.6%        |
| 1/2+1/1                                                           | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 24:38           | 14              | 481               | 1781:1531         | 302+224        | 91.4 : 91.4% |
| 2/2+2/1                                                           | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 42              | -               | 672               | 1918:1666         | 593+141        | 91.6 : 91.6% |
| 3/1+3/2                                                           | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 11              | -               | 190               | 1697:1832         | 170+48         | 87.2 : 87.2% |
| 4/2+4/1                                                           | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 53:42           | 11              | 432               | 1814:1978         | 107+593        | 61.7 : 61.7% |
| 5/1                                                               | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 611               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 728               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 263               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 173               | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

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# Full Input Data And Results

## Scenario 4: 'Do Nothing 2028 PM' (FG4: 'Do Nothing 2028 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 78.0%        |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 78.0%        |
| 1/2+1/1                                                           | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 19:33           | 14              | 333               | 1738:1531         | 266+162        | 77.7 : 77.7% |
| 2/2+2/1                                                           | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 51              | -               | 678               | 1932:1666         | 739+129        | 78.0 : 78.0% |
| 3/1+3/2                                                           | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 54                | 1716:1832         | 114+29         | 37.6 : 37.6% |
| 4/2+4/1                                                           | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 62:51           | 11              | 618               | 1814:1980         | 182+695        | 70.5 : 70.5% |
| 5/1                                                               | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 678               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 673               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 251               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 81                | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

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# Full Input Data And Results

## Scenario 5: 'Do Nothing 2033 AM' (FG5: 'Do Nothing 2033 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 96.0%        |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 96.0%        |
| 1/2+1/1                                                           | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 24:38           | 14              | 504               | 1781:1531         | 302+225        | 95.7 : 95.7% |
| 2/2+2/1                                                           | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 42              | -               | 704               | 1918:1666         | 593+141        | 96.0 : 96.0% |
| 3/1+3/2                                                           | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 11              | -               | 200               | 1697:1832         | 170+48         | 91.9 : 91.9% |
| 4/2+4/1                                                           | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 53:42           | 11              | 453               | 1814:1978         | 108+602        | 63.8 : 63.8% |
| 5/1                                                               | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 641               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 763               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 276               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 181               | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

[illegible]

## Full Input Data And Results

**Scenario 6: 'Do Nothing 2033 PM'** (FG6: 'Do Nothing 2033 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 81.8%        |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 81.8%        |
| 1/2+1/1                                                           | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 19:33           | 14              | 349               | 1738:1531         | 266+164        | 81.1 : 81.1% |
| 2/2+2/1                                                           | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 51              | -               | 711               | 1932:1666         | 739+130        | 81.8 : 81.8% |
| 3/1+3/2                                                           | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 56                | 1715:1832         | 114+28         | 39.4 : 39.4% |
| 4/2+4/1                                                           | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 62:51           | 11              | 648               | 1814:1980         | 181+696        | 73.9 : 73.9% |
| 5/1                                                               | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 710               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 706               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 263               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 85                | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

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# Full Input Data And Results

## Scenario 7: 'Do Nothing 2043 AM' (FG7: 'Do Nothing 2043 AM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    |
|------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 100.7%         |
| Fortfield Road && Templeogue Junction                      | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 100.7%         |
| 1/2+1/1                                                    | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 24:38           | 14              | 528               | 1781:1531         | 302+224        | 100.3 : 100.3% |
| 2/2+2/1                                                    | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 42              | -               | 739               | 1918:1666         | 593+141        | 100.7 : 100.7% |
| 3/1+3/2                                                    | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 11              | -               | 209               | 1697:1832         | 170+48         | 96.1 : 96.1%   |
| 4/2+4/1                                                    | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 53:42           | 11              | 475               | 1814:1977         | 110+616        | 65.4 : 65.4%   |
| 5/1                                                        | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 672               | Inf               | Inf            | 0.0%           |
| 6/1                                                        | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 800               | Inf               | Inf            | 0.0%           |
| 7/1                                                        | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 289               | Inf               | Inf            | 0.0%           |
| 8/1                                                        | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 190               | Inf               | Inf            | 0.0%           |
| Ped Link: P1                                               | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%           |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                                   | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                             | -              | -             | 68                    | 17                           | 55                          | 21.0                  | 33.2                         | 0.6                                | 54.8                | -                         | -                                | -                          | -                    |
| Fortfield Road && Templeogue Junction                                                                                                                                                                                                                                  | -              | -             | 68                    | 17                           | 55                          | 21.0                  | 33.2                         | 0.6                                | 54.8                | -                         | -                                | -                          | -                    |
| 1/2+1/1                                                                                                                                                                                                                                                                | 528            | 527           | -                     | -                            | -                           | 5.9                   | 11.9                         | -                                  | 17.8                | 121.5                     | 12.6                             | 11.9                       | 24.5                 |
| 2/2+2/1                                                                                                                                                                                                                                                                | 739            | 734           | 68                    | 0                            | 0                           | 8.0                   | 15.0                         | 0.2                                | 23.1                | 112.7                     | 23.4                             | 15.0                       | 38.4                 |
| 3/1+3/2                                                                                                                                                                                                                                                                | 209            | 209           | -                     | -                            | -                           | 3.1                   | 5.4                          | -                                  | 8.5                 | 145.8                     | 5.4                              | 5.4                        | 10.8                 |
| 4/2+4/1                                                                                                                                                                                                                                                                | 475            | 475           | 0                     | 17                           | 55                          | 4.0                   | 0.9                          | 0.4                                | 5.4                 | 40.8                      | 12.5                             | 0.9                        | 13.4                 |
| 5/1                                                                                                                                                                                                                                                                    | 671            | 671           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                    | 796            | 796           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                                    | 288            | 288           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                                    | 189            | 189           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| Ped Link: P1                                                                                                                                                                                                                                                           | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| C1                      PRC for Signalled Lanes (%): -11.9                      Total Delay for Signalled Lanes (pcuHr): 54.80                      Cycle Time (s): 120<br>PRC Over All Lanes (%): -11.9                      Total Delay Over All Lanes(pcuHr): 54.80 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

# Full Input Data And Results

## Scenario 8: 'Do Nothing 2043 PM' (FG8: 'Do Nothing 2043 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 85.9%        |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 85.9%        |
| 1/2+1/1                                                           | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 19:33           | 14              | 366               | 1737:1531         | 266+163        | 85.2 : 85.2% |
| 2/2+2/1                                                           | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 51              | -               | 746               | 1932:1666         | 739+129        | 85.9 : 85.9% |
| 3/1+3/2                                                           | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 60                | 1719:1832         | 115+29         | 41.9 : 41.9% |
| 4/2+4/1                                                           | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 62:51           | 11              | 680               | 1814:1980         | 181+696        | 77.5 : 77.5% |
| 5/1                                                               | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 746               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 741               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 276               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 89                | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

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# Full Input Data And Results

## Scenario 9: 'Opening Year 2028 AM' (FG9: 'Opening Year 2028 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 93.8%        |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 93.8%        |
| 1/2+1/1                                                           | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 25:39           | 14              | 502               | 1781:1531         | 310+230        | 92.9 : 92.9% |
| 2/2+2/1                                                           | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 41              | -               | 674               | 1918:1666         | 579+140        | 93.8 : 93.8% |
| 3/1+3/2                                                           | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 11              | -               | 191               | 1698:1832         | 170+48         | 87.8 : 87.8% |
| 4/2+4/1                                                           | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 52:41           | 11              | 433               | 1814:1978         | 105+575        | 63.6 : 63.6% |
| 5/1                                                               | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 619               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 737               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 267               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 177               | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                 | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                           | -              | -             | 85                    | 18                           | 26                          | 18.6                  | 14.9                         | 0.5                                | 34.0                | -                         | -                                | -                          | -                    |
| Fortfield Road & Templeogue Junction                                                                                                                                                                 | -              | -             | 85                    | 18                           | 26                          | 18.6                  | 14.9                         | 0.5                                | 34.0                | -                         | -                                | -                          | -                    |
| 1/2+1/1                                                                                                                                                                                              | 502            | 502           | -                     | -                            | -                           | 5.4                   | 5.2                          | -                                  | 10.5                | 75.5                      | 11.1                             | 5.2                        | 16.3                 |
| 2/2+2/1                                                                                                                                                                                              | 674            | 674           | 62                    | 0                            | 0                           | 6.8                   | 6.0                          | 0.1                                | 12.9                | 68.7                      | 19.9                             | 6.0                        | 25.9                 |
| 3/1+3/2                                                                                                                                                                                              | 191            | 191           | -                     | -                            | -                           | 2.8                   | 2.9                          | -                                  | 5.7                 | 107.8                     | 4.9                              | 2.9                        | 7.8                  |
| 4/2+4/1                                                                                                                                                                                              | 433            | 433           | 23                    | 18                           | 26                          | 3.7                   | 0.9                          | 0.3                                | 4.9                 | 40.4                      | 11.2                             | 0.9                        | 12.1                 |
| 5/1                                                                                                                                                                                                  | 619            | 619           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                  | 737            | 737           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                  | 267            | 267           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                  | 177            | 177           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| Ped Link: P1                                                                                                                                                                                         | 0              | 0             | -                     | -                            | -                           | -                     | -                            | -                                  | Inf                 | Inf                       | -                                | -                          | Inf                  |
| C1      PRC for Signalled Lanes (%): -4.2      Total Delay for Signalled Lanes (pcuHr): 33.97      Cycle Time (s): 120<br>PRC Over All Lanes (%): -4.2      Total Delay Over All Lanes(pcuHr): 33.97 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

# Full Input Data And Results

## Scenario 10: 'Opening Year 2028 PM' (FG10: 'Opening Year 2028 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 78.9%        |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 78.9%        |
| 1/2+1/1                                                           | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 19:33           | 14              | 339               | 1737:1531         | 266+164        | 78.9 : 78.9% |
| 2/2+2/1                                                           | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 51              | -               | 684               | 1932:1666         | 734+136        | 78.6 : 78.6% |
| 3/1+3/2                                                           | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 56                | 1724:1832         | 115+28         | 39.2 : 39.2% |
| 4/2+4/1                                                           | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 62:51           | 11              | 625               | 1814:1980         | 190+688        | 71.2 : 71.2% |
| 5/1                                                               | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 681               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 676               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 266               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 81                | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

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## Full Input Data And Results

## Scenario 11: 'Design Year 2033 AM' (FG11: 'Design Year 2033 AM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 98.2%        |
| Fortfield Road && Templeogue Junction                      | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 98.2%        |
| 1/2+1/1                                                    | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 25:39           | 14              | 525               | 1781:1531         | 310+231        | 97.1 : 97.1% |
| 2/2+2/1                                                    | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 41              | -               | 706               | 1918:1666         | 579+139        | 98.2 : 98.2% |
| 3/1+3/2                                                    | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 11              | -               | 200               | 1697:1832         | 170+48         | 91.9 : 91.9% |
| 4/2+4/1                                                    | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 52:41           | 11              | 454               | 1814:1978         | 109+601        | 63.9 : 63.9% |
| 5/1                                                        | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 649               | Inf               | Inf            | 0.0%         |
| 6/1                                                        | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 772               | Inf               | Inf            | 0.0%         |
| 7/1                                                        | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 279               | Inf               | Inf            | 0.0%         |
| 8/1                                                        | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 185               | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                               | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

[illegible]

## Full Input Data And Results

## Scenario 12: 'Design Year 2033 PM' (FG12: 'Design Year 2033 PM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 82.6%        |
| Fortfield Road && Templeogue Junction                      | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 82.6%        |
| 1/2+1/1                                                    | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 19:33           | 14              | 355               | 1737:1531         | 266+163        | 82.6 : 82.6% |
| 2/2+2/1                                                    | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 51              | -               | 717               | 1932:1666         | 734+136        | 82.4 : 82.4% |
| 3/1+3/2                                                    | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 58                | 1723:1832         | 115+27         | 40.9 : 40.9% |
| 4/2+4/1                                                    | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 62:51           | 11              | 655               | 1814:1980         | 189+689        | 74.6 : 74.6% |
| 5/1                                                        | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 714               | Inf               | Inf            | 0.0%         |
| 6/1                                                        | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 708               | Inf               | Inf            | 0.0%         |
| 7/1                                                        | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 278               | Inf               | Inf            | 0.0%         |
| 8/1                                                        | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 85                | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                               | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

[illegible]

## Full Input Data And Results

## Scenario 13: 'Design Year 2043 AM' (FG13: 'Design Year 2043 AM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    |
|------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 103.1%         |
| Fortfield Road && Templeogue Junction                      | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 103.1%         |
| 1/2+1/1                                                    | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 25:39           | 14              | 549               | 1781:1531         | 310+230        | 101.6 : 101.6% |
| 2/2+2/1                                                    | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 41              | -               | 741               | 1918:1666         | 579+140        | 103.1 : 103.1% |
| 3/1+3/2                                                    | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 11              | -               | 210               | 1698:1832         | 170+48         | 96.6 : 96.6%   |
| 4/2+4/1                                                    | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 52:41           | 11              | 476               | 1814:1977         | 109+601        | 67.1 : 67.1%   |
| 5/1                                                        | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 680               | Inf               | Inf            | 0.0%           |
| 6/1                                                        | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 809               | Inf               | Inf            | 0.0%           |
| 7/1                                                        | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 293               | Inf               | Inf            | 0.0%           |
| 8/1                                                        | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 194               | Inf               | Inf            | 0.0%           |
| Ped Link: P1                                               | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%           |

## Full Input Data And Results

[illegible]

## Full Input Data And Results

**Scenario 14: 'Design Year 2044 PM'** (FG14: 'Design Year 2043 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                         | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 87.1%        |
| <b>Fortfield Road &amp;&amp; Templeogue Junction</b>              | -                                        | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 87.1%        |
| 1/2+1/1                                                           | Fortfield Road (Exit) Right Left Ahead   | U         | N/A               | N/A                        | E          | D           | 1:2        | 19:33           | 14              | 374               | 1738:1531         | 266+163        | 87.1 : 87.1% |
| 2/2+2/1                                                           | Templeogue Road (South) Ahead Left Right | O+U       | N/A               | N/A                        | A          |             | 1          | 51              | -               | 752               | 1932:1666         | 735+135        | 86.4 : 86.4% |
| 3/1+3/2                                                           | Bushy Park House (Exit) Left Right Ahead | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 61                | 1722:1832         | 115+28         | 42.7 : 42.7% |
| 4/2+4/1                                                           | Templeogue Road (North) Ahead Right Left | O+U       | N/A               | N/A                        | G          | F           | 2:1        | 62:51           | 11              | 688               | 1814:1980         | 189+689        | 78.4 : 78.4% |
| 5/1                                                               | Templeogue Road (South Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 750               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | Templeogue Road (North Entrance)         | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 744               | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Fortfield Road (Entrance)                | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 291               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Bushy Park House (Entrance)              | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 90                | Inf               | Inf            | 0.0%         |
| Ped Link: P1                                                      | Unnamed Ped Link                         | -         | -                 | -                          |            |             | 0          | 0               | -               | 0                 | -                 | 0              | 0.0%         |

## Full Input Data And Results

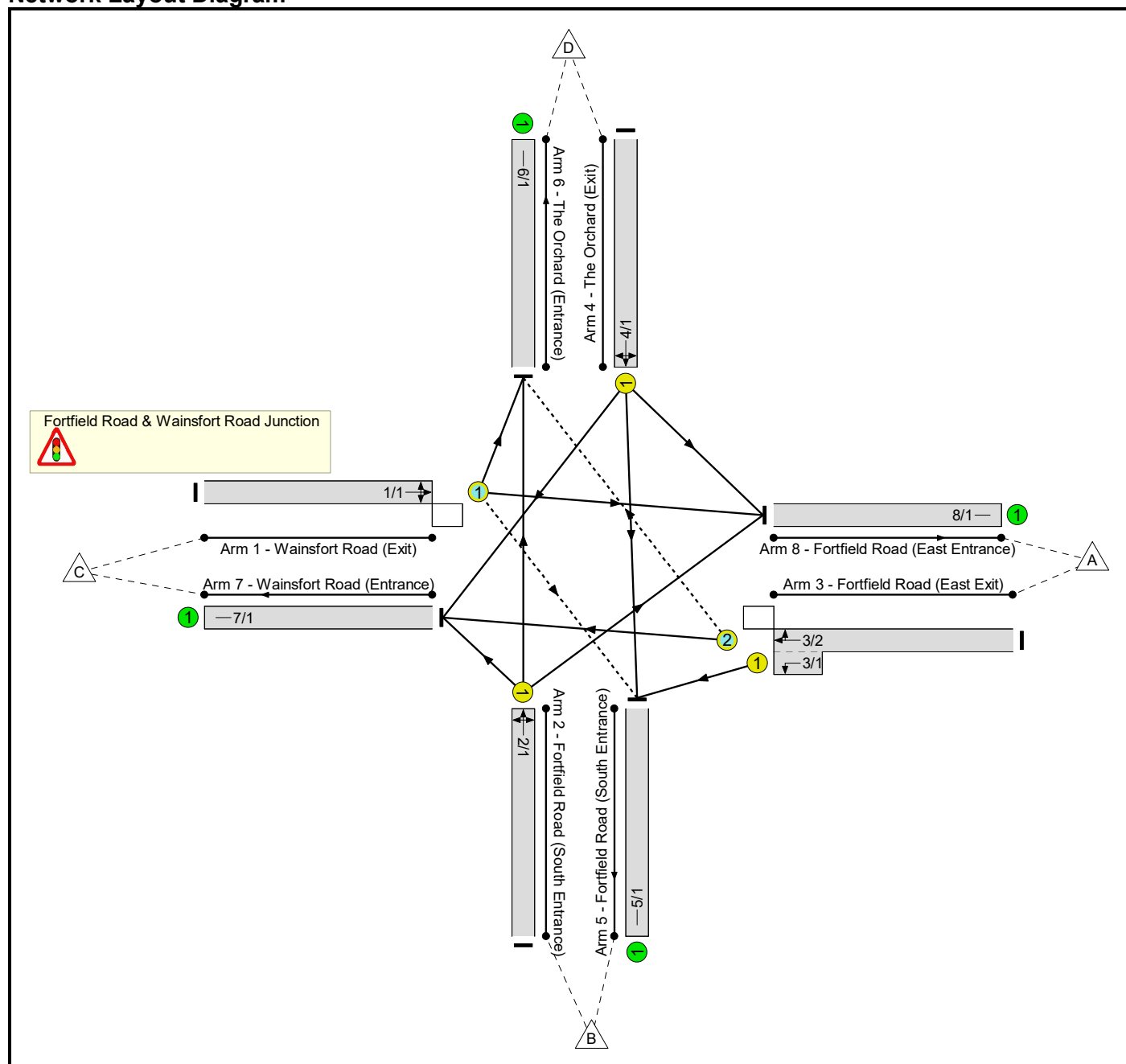
[illegible]

## **Appendix E      Fortfield Road / Wainsfort Road / The Orchard LinSig Results**

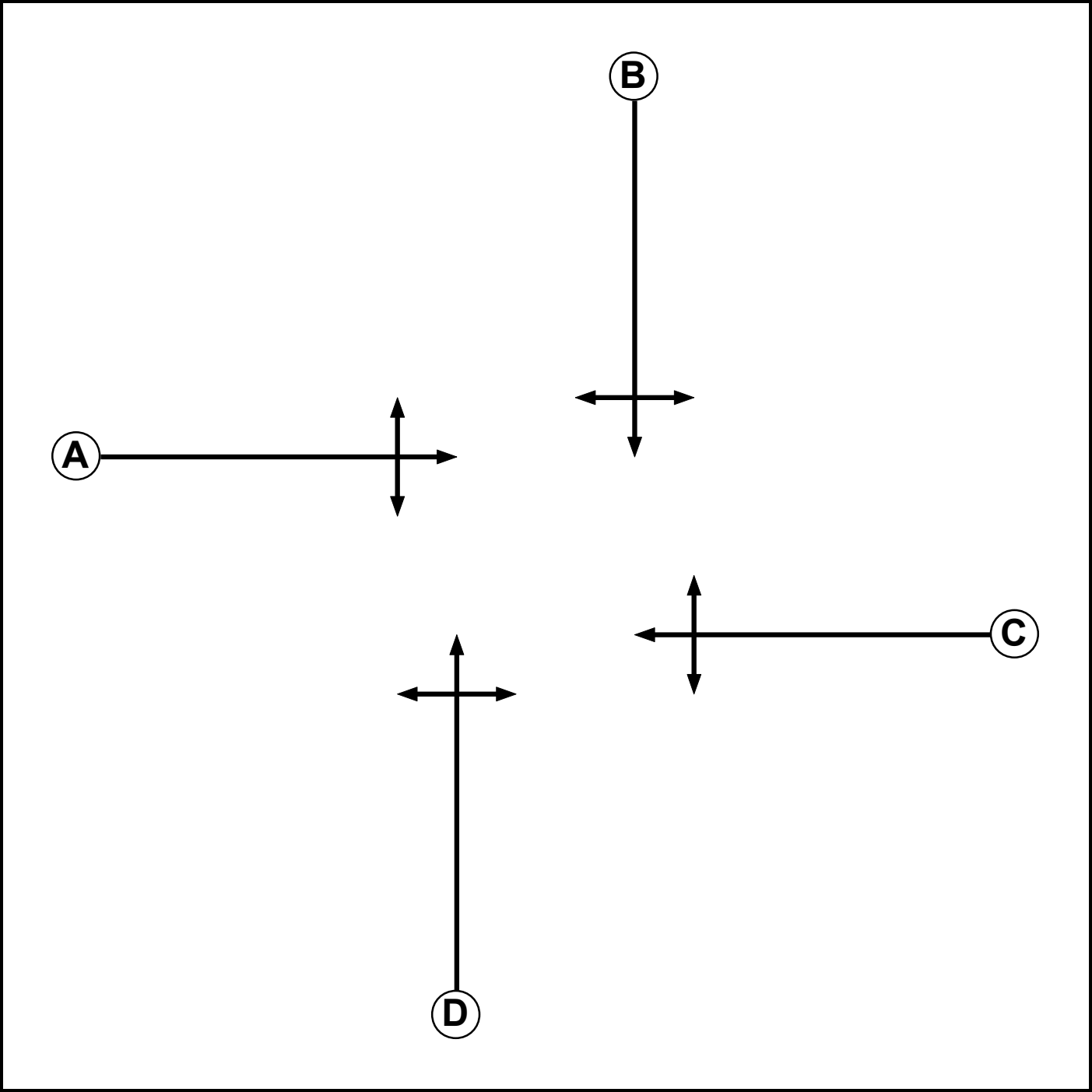
**Full Input Data And Results****User and Project Details**

|                           |                                                                           |
|---------------------------|---------------------------------------------------------------------------|
| <b>Project:</b>           | <b>222102 - Fortfield Road</b>                                            |
| <b>Title:</b>             | <b>Residential Development, Fortfield Road, Terenure</b>                  |
| <b>Location:</b>          |                                                                           |
| <b>Date Started:</b>      | April 2022                                                                |
| <b>Checked By:</b>        | J Tiernan                                                                 |
| <b>Additional detail:</b> |                                                                           |
| <b>File name:</b>         | 222102_J3_JPM_24-08-13.lsg3x                                              |
| <b>Author:</b>            | JPM / SOC                                                                 |
| <b>Company:</b>           | PUNCH Consulting Engineers                                                |
| <b>Address:</b>           | Carnegie House, Library Road, Dun Laoghaire, Co Dublin, A96 C7W7, Ireland |

## Network Layout Diagram



Phase Diagram



Phase Input Data

| Phase Name | Phase Type | Assoc. Phase | Street Min | Cont Min |
|------------|------------|--------------|------------|----------|
| A          | Traffic    |              | 7          | 7        |
| B          | Traffic    |              | 7          | 7        |
| C          | Traffic    |              | 7          | 7        |
| D          | Traffic    |              | 7          | 7        |

Full Input Data And Results

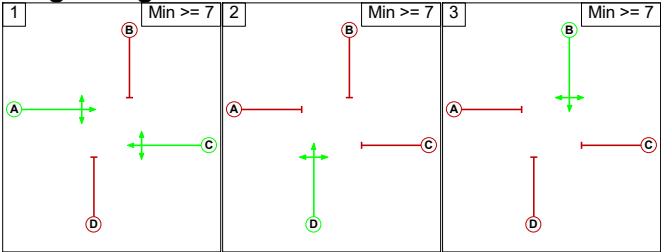
Phase Intergreens Matrix

| Terminating Phase | Starting Phase |   |   |   |   |
|-------------------|----------------|---|---|---|---|
|                   |                | A | B | C | D |
|                   | A              |   | 5 | - | 6 |
|                   | B              | 6 |   | 7 | 6 |
|                   | C              | - | 5 |   | 6 |
|                   | D              | 5 | 5 | 5 |   |

Phases in Stage

| Stage No. | Phases in Stage |
|-----------|-----------------|
| 1         | A C             |
| 2         | D               |
| 3         | B               |

Stage Diagram



Phase Delays

| Term. Stage                       | Start Stage | Phase | Type | Value | Cont value |
|-----------------------------------|-------------|-------|------|-------|------------|
| There are no Phase Delays defined |             |       |      |       |            |

Prohibited Stage Change

| From Stage | To Stage |   |   |   |
|------------|----------|---|---|---|
|            |          | 1 | 2 | 3 |
|            | 1        |   | 6 | 5 |
|            | 2        | 5 |   | 5 |
|            | 3        | 7 | 6 |   |

Full Input Data And Results

**Give-Way Lane Input Data**

| Junction: Fortfield Road && Wainsfort Road Junction |             |                                   |                                   |               |                  |                              |                          |                            |      |                        |                               |
|-----------------------------------------------------|-------------|-----------------------------------|-----------------------------------|---------------|------------------|------------------------------|--------------------------|----------------------------|------|------------------------|-------------------------------|
| Lane                                                | Movement    | Max Flow when Giving Way (PCU/Hr) | Min Flow when Giving Way (PCU/Hr) | Opposing Lane | Opp. Lane Coeff. | Opp. Mvmnts.                 | Right Turn Storage (PCU) | Non-Blocking Storage (PCU) | RTF  | Right Turn Move up (s) | Max Turns in Intergreen (PCU) |
| 1/1<br>(Wainsfort Road (Exit))                      | 5/1 (Right) | 1439                              | 0                                 | 3/2           | 1.09             | To 7/1 (Ahead)               | 2.00                     | 2.00                       | 0.50 | 2                      | 2.00                          |
|                                                     |             |                                   |                                   | 3/1           | 1.09             | All                          |                          |                            |      |                        |                               |
| 3/2<br>(Fortfield Road (East Exit))                 | 6/1 (Right) | 1439                              | 0                                 | 1/1           | 1.09             | To 6/1 (Left) To 8/1 (Ahead) | 2.00                     | 2.00                       | 0.50 | 2                      | 2.00                          |

**Lane Input Data**

| Junction: Fortfield Road & Wainsfort Road Junction |           |        |             |           |                       |               |                                   |                |          |               |             |                    |
|----------------------------------------------------|-----------|--------|-------------|-----------|-----------------------|---------------|-----------------------------------|----------------|----------|---------------|-------------|--------------------|
| Lane                                               | Lane Type | Phases | Start Disp. | End Disp. | Physical Length (PCU) | Sat Flow Type | Def User Saturation Flow (PCU/Hr) | Lane Width (m) | Gradient | Nearside Lane | Turns       | Turning Radius (m) |
| 1/1<br>(Wainsfort Road (Exit))                     | O         | A      | 2           | 3         | 60.0                  | Geom          | -                                 | 2.50           | 0.00     | Y             | Arm 5 Right | 10.50              |
|                                                    |           |        |             |           |                       |               |                                   |                |          |               | Arm 6 Left  | 7.20               |
|                                                    |           |        |             |           |                       |               |                                   |                |          |               | Arm 8 Ahead | Inf                |
| 2/1<br>(Fortfield Road (South Entrance))           | U         | D      | 2           | 3         | 60.0                  | Geom          | -                                 | 4.50           | 0.00     | Y             | Arm 6 Ahead | Inf                |
|                                                    |           |        |             |           |                       |               |                                   |                |          |               | Arm 7 Left  | 9.50               |
|                                                    |           |        |             |           |                       |               |                                   |                |          |               | Arm 8 Right | 14.11              |
| 3/1<br>(Fortfield Road (East Exit))                | U         | C      | 2           | 3         | 3.2                   | Geom          | -                                 | 3.40           | 0.00     | Y             | Arm 5 Left  | Inf                |
| 3/2<br>(Fortfield Road (East Exit))                | O         | C      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.10           | 0.00     | Y             | Arm 6 Right | 10.30              |
|                                                    |           |        |             |           |                       |               |                                   |                |          |               | Arm 7 Ahead | Inf                |
|                                                    |           |        |             |           |                       |               |                                   |                |          |               | Arm 5 Ahead | Inf                |
| 4/1<br>(The Orchard (Exit))                        | U         | B      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.00           | 0.00     | Y             | Arm 7 Right | 8.40               |
|                                                    |           |        |             |           |                       |               |                                   |                |          |               | Arm 8 Left  | 8.00               |
| 5/1<br>(Fortfield Road (South Entrance))           | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 6/1<br>(The Orchard (Entrance))                    | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 7/1<br>(Wainsfort Road (Entrance))                 | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 8/1<br>(Fortfield Road (East Entrance))            | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |

Traffic Flow Groups

| Flow Group                 | Start Time | End Time | Duration | Formula |
|----------------------------|------------|----------|----------|---------|
| 1: 'Survey Year 2024 AM'   | 08:15      | 09:15    | 01:00    |         |
| 2: 'Survey Year 2024 PM'   | 16:45      | 17:45    | 01:00    |         |
| 3: 'Do Nothing 2028 AM'    | 08:15      | 09:15    | 01:00    |         |
| 4: 'Do Nothing 2028 PM'    | 16:45      | 17:45    | 01:00    |         |
| 5: 'Do Nothing 2033 AM'    | 08:15      | 09:15    | 01:00    |         |
| 6: 'Do Nothing 2033 PM'    | 16:45      | 17:45    | 01:00    |         |
| 7: 'Do Nothing 2043 AM'    | 08:15      | 09:15    | 01:00    |         |
| 8: 'Do Nothing 2043 PM'    | 16:45      | 17:45    | 01:00    |         |
| 9: 'Opening Year 2028 AM'  | 08:15      | 09:15    | 01:00    |         |
| 10: 'Opening Year 2028 PM' | 16:45      | 17:45    | 01:00    |         |
| 11: 'Design Year 2033 AM'  | 08:15      | 09:15    | 01:00    |         |
| 12: 'Design Year 2033 PM'  | 16:45      | 17:45    | 01:00    |         |
| 13: 'Design Year 2043 AM'  | 08:15      | 09:15    | 01:00    |         |
| 14: 'Design Year 2043 PM'  | 16:45      | 17:45    | 01:00    |         |

Traffic Flows, Desired

Scenario 1: 'Survey Year 2024 AM' (FG1: 'Survey Year 2024 AM', Plan 1: 'Network Control Plan 1')

Desired Flow :

| Origin | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
|        |             | A   | B   | C   | D | Tot. |
|        | A           | 0   | 253 | 358 | 0 | 611  |
|        | B           | 115 | 0   | 16  | 2 | 133  |
|        | C           | 428 | 19  | 0   | 0 | 447  |
|        | D           | 2   | 0   | 2   | 0 | 4    |
|        | Tot.        | 545 | 272 | 376 | 2 | 1195 |

## Full Input Data And Results

**Scenario 2: 'Survey Year 2024 PM'** (FG2: 'Survey Year 2024 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
| Origin |             | A   | B   | C   | D | Tot. |
|        | A           | 0   | 149 | 609 | 5 | 763  |
|        | B           | 90  | 0   | 14  | 3 | 107  |
|        | C           | 361 | 17  | 0   | 1 | 379  |
|        | D           | 1   | 1   | 0   | 0 | 2    |
|        | Tot.        | 452 | 167 | 623 | 9 | 1251 |

**Scenario 3: 'Do Nothing 2028 AM'** (FG3: 'Do Nothing 2028 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
| Origin |             | A   | B   | C   | D | Tot. |
|        | A           | 0   | 270 | 382 | 0 | 652  |
|        | B           | 123 | 0   | 17  | 2 | 142  |
|        | C           | 457 | 20  | 0   | 0 | 477  |
|        | D           | 2   | 0   | 2   | 0 | 4    |
|        | Tot.        | 582 | 290 | 401 | 2 | 1275 |

**Scenario 4: 'Do Nothing 2028 PM'** (FG4: 'Do Nothing 2028 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
| Origin |             | A   | B   | C   | D | Tot. |
|        | A           | 0   | 159 | 649 | 5 | 813  |
|        | B           | 96  | 0   | 15  | 3 | 114  |
|        | C           | 385 | 18  | 0   | 1 | 404  |
|        | D           | 1   | 1   | 0   | 0 | 2    |
|        | Tot.        | 482 | 178 | 664 | 9 | 1333 |

**Scenario 5: 'Do Nothing 2033 AM'** (FG5: 'Do Nothing 2033 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
| Origin |             | A   | B   | C   | D | Tot. |
|        | A           | 0   | 283 | 401 | 0 | 684  |
|        | B           | 129 | 0   | 18  | 2 | 149  |
|        | C           | 479 | 21  | 0   | 0 | 500  |
|        | D           | 2   | 0   | 2   | 0 | 4    |
|        | Tot.        | 610 | 304 | 421 | 2 | 1337 |

## Full Input Data And Results

### Scenario 6: 'Do Nothing 2033 PM' (FG6: 'Do Nothing 2033 PM', Plan 1: 'Network Control Plan 1')

#### Desired Flow :

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 166 | 681 | 6  | 853  |
|        | B           | 101 | 0   | 16  | 3  | 120  |
|        | C           | 404 | 18  | 0   | 1  | 423  |
|        | D           | 1   | 1   | 0   | 0  | 2    |
|        | Tot.        | 506 | 185 | 697 | 10 | 1398 |

### Scenario 7: 'Do Nothing 2043 AM' (FG7: 'Do Nothing 2043 AM', Plan 1: 'Network Control Plan 1')

#### Desired Flow :

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
|        |             | A   | B   | C   | D | Tot. |
| Origin | A           | 0   | 297 | 421 | 0 | 718  |
|        | B           | 135 | 0   | 19  | 2 | 156  |
|        | C           | 503 | 22  | 0   | 0 | 525  |
|        | D           | 2   | 0   | 2   | 0 | 4    |
|        | Tot.        | 640 | 319 | 442 | 2 | 1403 |

### Scenario 8: 'Do Nothing 2043 PM' (FG8: 'Do Nothing 2043 PM', Plan 1: 'Network Control Plan 1')

#### Desired Flow :

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 175 | 715 | 6  | 896  |
|        | B           | 106 | 0   | 16  | 4  | 126  |
|        | C           | 424 | 19  | 0   | 1  | 444  |
|        | D           | 1   | 1   | 0   | 0  | 2    |
|        | Tot.        | 531 | 195 | 731 | 11 | 1468 |

### Scenario 9: 'Opening Year 2028 AM' (FG9: 'Opening Year 2028 AM', Plan 1: 'Network Control Plan 1')

#### Desired Flow :

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
|        |             | A   | B   | C   | D | Tot. |
| Origin | A           | 0   | 274 | 382 | 0 | 656  |
|        | B           | 142 | 0   | 20  | 2 | 164  |
|        | C           | 457 | 20  | 0   | 0 | 477  |
|        | D           | 2   | 0   | 2   | 0 | 4    |
|        | Tot.        | 601 | 294 | 404 | 2 | 1301 |

## Full Input Data And Results

**Scenario 10: 'Opening Year 2028 PM'** (FG10: 'Opening Year 2028 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
|        |             | A   | B   | C   | D | Tot. |
| Origin | A           | 0   | 174 | 649 | 5 | 828  |
|        | B           | 102 | 0   | 16  | 3 | 121  |
|        | C           | 385 | 19  | 0   | 1 | 405  |
|        | D           | 1   | 1   | 0   | 0 | 2    |
|        | Tot.        | 488 | 194 | 665 | 9 | 1356 |

**Scenario 11: 'Design Year 2033 aM'** (FG11: 'Design Year 2033 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
|        |             | A   | B   | C   | D | Tot. |
| Origin | A           | 0   | 287 | 401 | 0 | 688  |
|        | B           | 148 | 0   | 21  | 3 | 172  |
|        | C           | 479 | 21  | 0   | 0 | 500  |
|        | D           | 2   | 0   | 2   | 0 | 4    |
|        | Tot.        | 629 | 308 | 424 | 3 | 1364 |

**Scenario 12: 'Design Year 2033 PM'** (FG12: 'Design Year 2033 PM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
|        |             | A   | B   | C   | D  | Tot. |
| Origin | A           | 0   | 182 | 681 | 6  | 869  |
|        | B           | 107 | 0   | 17  | 4  | 128  |
|        | C           | 404 | 20  | 0   | 1  | 425  |
|        | D           | 1   | 1   | 0   | 0  | 2    |
|        | Tot.        | 512 | 203 | 698 | 11 | 1424 |

**Scenario 13: 'Design Year 2044 AM'** (FG13: 'Design Year 2043 AM', Plan 1: 'Network Control Plan 1')

**Desired Flow :**

|        | Destination |     |     |     |   |      |
|--------|-------------|-----|-----|-----|---|------|
|        |             | A   | B   | C   | D | Tot. |
| Origin | A           | 0   | 301 | 421 | 0 | 722  |
|        | B           | 154 | 0   | 22  | 3 | 179  |
|        | C           | 503 | 22  | 0   | 0 | 525  |
|        | D           | 2   | 0   | 2   | 0 | 4    |
|        | Tot.        | 659 | 323 | 445 | 3 | 1430 |

Full Input Data And Results

**Scenario 14: 'Design Year 2044 PM'** (FG14: 'Design Year 2043 PM', Plan 1: 'Network Control Plan 1')  
**Desired Flow :**

|        | Destination |     |     |     |    |      |
|--------|-------------|-----|-----|-----|----|------|
| Origin |             | A   | B   | C   | D  | Tot. |
|        | A           | 0   | 190 | 715 | 6  | 911  |
|        | B           | 112 | 0   | 17  | 4  | 133  |
|        | C           | 424 | 21  | 0   | 1  | 446  |
|        | D           | 1   | 1   | 0   | 0  | 2    |
|        | Tot.        | 537 | 212 | 732 | 11 | 1492 |

Full Input Data And Results

Network Results

Scenario 1: 'Survey Year 2024 AM' (FG1: 'Survey Year 2024 AM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 49.5%        |
| Fortfield Road && Wainsfort Road Junction                  | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 49.5%        |
| 1/1                                                        | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 54              | -               | 447               | 1854              | 1133           | 39.5%        |
| 2/1                                                        | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 12              | -               | 133               | 1859              | 269            | 49.5%        |
| 3/2+3/1                                                    | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 53              | -               | 611               | 1925:1955         | 732+517        | 48.9 : 48.9% |
| 4/1                                                        | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 4                 | 1619              | 144            | 2.8%         |
| 5/1                                                        | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 272               | Inf               | Inf            | 0.0%         |
| 6/1                                                        | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 2                 | Inf               | Inf            | 0.0%         |
| 7/1                                                        | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 376               | Inf               | Inf            | 0.0%         |
| 8/1                                                        | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 545               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                             | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                       | -              | -             | 19                    | 0                            | 0                           | 4.0                   | 1.3                          | 0.0                                | 5.3                 | -                         | -                                | -                          | -                    |
| Fortfield Road & Wainsfort Road Junction                                                                                                                                                                                                                         | -              | -             | 19                    | 0                            | 0                           | 4.0                   | 1.3                          | 0.0                                | 5.3                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                              | 447            | 447           | 19                    | 0                            | 0                           | 1.1                   | 0.3                          | 0.0                                | 1.5                 | 11.7                      | 5.7                              | 0.3                        | 6.0                  |
| 2/1                                                                                                                                                                                                                                                              | 133            | 133           | -                     | -                            | -                           | 1.3                   | 0.5                          | -                                  | 1.8                 | 48.7                      | 3.0                              | 0.5                        | 3.5                  |
| 3/2+3/1                                                                                                                                                                                                                                                          | 611            | 611           | 0                     | 0                            | 0                           | 1.5                   | 0.5                          | 0.0                                | 2.0                 | 11.7                      | 5.5                              | 0.5                        | 6.0                  |
| 4/1                                                                                                                                                                                                                                                              | 4              | 4             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.1                 | 50.7                      | 0.1                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                              | 272            | 272           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                              | 2              | 2             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                              | 376            | 376           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                              | 545            | 545           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                  PRC for Signalled Lanes (%):    81.7                  Total Delay for Signalled Lanes (pcuHr):    5.29                  Cycle Time (s):    90<br>PRC Over All Lanes (%):    81.7                  Total Delay Over All Lanes(pcuHr):    5.29 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

Full Input Data And Results

Scenario 2: 'Survey Year 2024 PM' (FG2: 'Survey Year 2024 PM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 60.1%        |
| Fortfield Road && Wainsfort Road Junction                  | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 60.1%        |
| 1/1                                                        | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 58              | -               | 379               | 1852              | 1214           | 31.2%        |
| 2/1                                                        | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 8               | -               | 107               | 1860              | 186            | 57.5%        |
| 3/2+3/1                                                    | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 57              | -               | 763               | 1923:1955         | 1022+248       | 60.1 : 60.1% |
| 4/1                                                        | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 2                 | 1751              | 156            | 1.3%         |
| 5/1                                                        | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 167               | Inf               | Inf            | 0.0%         |
| 6/1                                                        | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 9                 | Inf               | Inf            | 0.0%         |
| 7/1                                                        | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 623               | Inf               | Inf            | 0.0%         |
| 8/1                                                        | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 452               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                                             | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                                       | -              | -             | 22                    | 0                            | 0                           | 3.7                   | 1.6                          | 0.0                                | 5.4                 | -                         | -                                | -                          | -                    |
| Fortfield Road && Wainsfort Road Junction                                                                                                                                                                                                                                        | -              | -             | 22                    | 0                            | 0                           | 3.7                   | 1.6                          | 0.0                                | 5.4                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                                              | 379            | 379           | 17                    | 0                            | 0                           | 0.7                   | 0.2                          | 0.0                                | 1.0                 | 9.2                       | 4.0                              | 0.2                        | 4.2                  |
| 2/1                                                                                                                                                                                                                                                                              | 107            | 107           | -                     | -                            | -                           | 1.1                   | 0.7                          | -                                  | 1.8                 | 61.1                      | 2.5                              | 0.7                        | 3.2                  |
| 3/2+3/1                                                                                                                                                                                                                                                                          | 763            | 763           | 5                     | 0                            | 0                           | 1.8                   | 0.8                          | 0.0                                | 2.6                 | 12.3                      | 9.8                              | 0.8                        | 10.6                 |
| 4/1                                                                                                                                                                                                                                                                              | 2              | 2             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 49.5                      | 0.0                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                                              | 167            | 167           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                              | 9              | 9             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                                              | 623            | 623           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                                              | 452            | 452           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                      PRC for Signalled Lanes (%):    49.8                      Total Delay for Signalled Lanes (pcuHr):    5.41                      Cycle Time (s):    90<br>PRC Over All Lanes (%):    49.8                      Total Delay Over All Lanes(pcuHr):    5.41 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

# Full Input Data And Results

## Scenario 3: 'Do Nothing 2028 AM' (FG3: 'Do Nothing 2028 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 52.9%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 52.9%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 54              | -               | 477               | 1854              | 1133           | 42.1%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 12              | -               | 142               | 1859              | 269            | 52.9%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 53              | -               | 652               | 1925:1955         | 732+517        | 52.2 : 52.2% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 4                 | 1619              | 144            | 2.8%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 290               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 2                 | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 401               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 582               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

[illegible]

# Full Input Data And Results

## Scenario 4: 'Do Nothing 2028 PM' (FG4: 'Do Nothing 2028 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 64.0%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 64.0%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 58              | -               | 404               | 1852              | 1214           | 33.3%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 8               | -               | 114               | 1860              | 186            | 61.3%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 57              | -               | 813               | 1923:1955         | 1022+248       | 64.0 : 64.0% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 2                 | 1751              | 156            | 1.3%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 178               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 9                 | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 664               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 482               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

[illegible]

## Full Input Data And Results

## Scenario 5: 'Do Nothing 2033 AM' (FG5: 'Do Nothing 2033 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 55.5%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 55.5%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 54              | -               | 500               | 1854              | 1133           | 44.1%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 12              | -               | 149               | 1858              | 268            | 55.5%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 53              | -               | 684               | 1925:1955         | 732+517        | 54.8 : 54.8% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 4                 | 1619              | 144            | 2.8%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 304               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 2                 | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 421               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 610               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                                             | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                                       | -              | -             | 21                    | 0                            | 0                           | 4.6                   | 1.6                          | 0.0                                | 6.2                 | -                         | -                                | -                          | -                    |
| Fortfield Road && Wainsfort Road Junction                                                                                                                                                                                                                                        | -              | -             | 21                    | 0                            | 0                           | 4.6                   | 1.6                          | 0.0                                | 6.2                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                                              | 500            | 500           | 21                    | 0                            | 0                           | 1.3                   | 0.4                          | 0.0                                | 1.7                 | 12.4                      | 6.5                              | 0.4                        | 6.9                  |
| 2/1                                                                                                                                                                                                                                                                              | 149            | 149           | -                     | -                            | -                           | 1.5                   | 0.6                          | -                                  | 2.1                 | 50.7                      | 3.4                              | 0.6                        | 4.1                  |
| 3/2+3/1                                                                                                                                                                                                                                                                          | 684            | 684           | 0                     | 0                            | 0                           | 1.8                   | 0.6                          | 0.0                                | 2.4                 | 12.5                      | 7.1                              | 0.6                        | 7.7                  |
| 4/1                                                                                                                                                                                                                                                                              | 4              | 4             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.1                 | 50.7                      | 0.1                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                                              | 304            | 304           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                              | 2              | 2             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                                              | 421            | 421           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                                              | 610            | 610           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                      PRC for Signalled Lanes (%):    62.1                      Total Delay for Signalled Lanes (pcuHr):    6.24                      Cycle Time (s):    90<br>PRC Over All Lanes (%):    62.1                      Total Delay Over All Lanes(pcuHr):    6.24 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

# Full Input Data And Results

## Scenario 6: 'Do Nothing 2033 PM' (FG6: 'Do Nothing 2033 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 67.2%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 67.2%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 58              | -               | 423               | 1853              | 1215           | 34.8%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 8               | -               | 120               | 1859              | 186            | 64.6%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 57              | -               | 853               | 1923:1955         | 1023+247       | 67.2 : 67.2% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 2                 | 1751              | 156            | 1.3%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 185               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 10                | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 697               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 506               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                                             | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                                       | -              | -             | 24                    | 0                            | 0                           | 4.4                   | 2.2                          | 0.1                                | 6.6                 | -                         | -                                | -                          | -                    |
| Fortfield Road && Wainsfort Road Junction                                                                                                                                                                                                                                        | -              | -             | 24                    | 0                            | 0                           | 4.4                   | 2.2                          | 0.1                                | 6.6                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                                              | 423            | 423           | 18                    | 0                            | 0                           | 0.8                   | 0.3                          | 0.1                                | 1.1                 | 9.6                       | 4.7                              | 0.3                        | 5.0                  |
| 2/1                                                                                                                                                                                                                                                                              | 120            | 120           | -                     | -                            | -                           | 1.3                   | 0.9                          | -                                  | 2.2                 | 65.6                      | 2.9                              | 0.9                        | 3.8                  |
| 3/2+3/1                                                                                                                                                                                                                                                                          | 853            | 853           | 6                     | 0                            | 0                           | 2.2                   | 1.0                          | 0.0                                | 3.3                 | 13.7                      | 12.3                             | 1.0                        | 13.3                 |
| 4/1                                                                                                                                                                                                                                                                              | 2              | 2             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 49.5                      | 0.0                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                                              | 185            | 185           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                              | 10             | 10            | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                                              | 697            | 697           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                                              | 506            | 506           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                      PRC for Signalled Lanes (%):    34.0                      Total Delay for Signalled Lanes (pcuHr):    6.60                      Cycle Time (s):    90<br>PRC Over All Lanes (%):    34.0                      Total Delay Over All Lanes(pcuHr):    6.60 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

# Full Input Data And Results

## Scenario 7: 'Do Nothing 2043 AM' (FG7: 'Do Nothing 2043 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 58.1%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 58.1%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 54              | -               | 525               | 1854              | 1133           | 46.3%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 12              | -               | 156               | 1858              | 268            | 58.1%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 53              | -               | 718               | 1925:1955         | 732+517        | 57.5 : 57.5% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 4                 | 1619              | 144            | 2.8%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 319               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 2                 | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 442               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 640               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                                             | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                                       | -              | -             | 22                    | 0                            | 0                           | 4.9                   | 1.8                          | 0.0                                | 6.7                 | -                         | -                                | -                          | -                    |
| Fortfield Road && Wainsfort Road Junction                                                                                                                                                                                                                                        | -              | -             | 22                    | 0                            | 0                           | 4.9                   | 1.8                          | 0.0                                | 6.7                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                                              | 525            | 525           | 22                    | 0                            | 0                           | 1.4                   | 0.4                          | 0.0                                | 1.8                 | 12.7                      | 7.0                              | 0.4                        | 7.4                  |
| 2/1                                                                                                                                                                                                                                                                              | 156            | 156           | -                     | -                            | -                           | 1.6                   | 0.7                          | -                                  | 2.2                 | 51.8                      | 3.6                              | 0.7                        | 4.3                  |
| 3/2+3/1                                                                                                                                                                                                                                                                          | 718            | 718           | 0                     | 0                            | 0                           | 1.9                   | 0.7                          | 0.0                                | 2.6                 | 12.9                      | 7.7                              | 0.7                        | 8.4                  |
| 4/1                                                                                                                                                                                                                                                                              | 4              | 4             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.1                 | 50.7                      | 0.1                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                                              | 319            | 319           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                              | 2              | 2             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                                              | 442            | 442           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                                              | 640            | 640           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                      PRC for Signalled Lanes (%):    54.8                      Total Delay for Signalled Lanes (pcuHr):    6.72                      Cycle Time (s):    90<br>PRC Over All Lanes (%):    54.8                      Total Delay Over All Lanes(pcuHr):    6.72 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

# Full Input Data And Results

## Scenario 8: 'Do Nothing 2043 PM' (FG8: 'Do Nothing 2043 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 70.5%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 70.5%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 58              | -               | 444               | 1853              | 1215           | 36.6%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 8               | -               | 126               | 1861              | 186            | 67.7%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 57              | -               | 896               | 1923:1955         | 1022+248       | 70.5 : 70.5% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 2                 | 1751              | 156            | 1.3%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 195               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 11                | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 731               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 531               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

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## Full Input Data And Results

## Scenario 9: 'Opening Year 2028 AM' (FG9: 'Opening Year 2028 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 54.3%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 54.3%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 52              | -               | 477               | 1854              | 1092           | 43.7%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 14              | -               | 164               | 1858              | 310            | 53.0%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 51              | -               | 656               | 1925:1955         | 703+504        | 54.3 : 54.3% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 4                 | 1619              | 144            | 2.8%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 294               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 2                 | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 404               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 601               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                              | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                        | -              | -             | 20                    | 0                            | 0                           | 4.8                   | 1.6                          | 0.0                                | 6.4                 | -                         | -                                | -                          | -                    |
| Fortfield Road && Wainsfort Road Junction                                                                                                                                                                                                                         | -              | -             | 20                    | 0                            | 0                           | 4.8                   | 1.6                          | 0.0                                | 6.4                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                               | 477            | 477           | 20                    | 0                            | 0                           | 1.4                   | 0.4                          | 0.0                                | 1.8                 | 13.4                      | 6.5                              | 0.4                        | 6.9                  |
| 2/1                                                                                                                                                                                                                                                               | 164            | 164           | -                     | -                            | -                           | 1.6                   | 0.6                          | -                                  | 2.1                 | 46.5                      | 3.7                              | 0.6                        | 4.3                  |
| 3/2+3/1                                                                                                                                                                                                                                                           | 656            | 656           | 0                     | 0                            | 0                           | 1.9                   | 0.6                          | 0.0                                | 2.5                 | 13.5                      | 7.0                              | 0.6                        | 7.6                  |
| 4/1                                                                                                                                                                                                                                                               | 4              | 4             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.1                 | 50.7                      | 0.1                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                               | 294            | 294           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                               | 2              | 2             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                               | 404            | 404           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                               | 601            | 601           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                      PRC for Signalled Lanes (%): 65.6                      Total Delay for Signalled Lanes (pcuHr): 6.40                      Cycle Time (s): 90<br>PRC Over All Lanes (%): 65.6                      Total Delay Over All Lanes(pcuHr): 6.40 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

# Full Input Data And Results

## Scenario 10: 'Opening Year 2028 PM' (FG10: 'Opening Year 2028 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 65.1%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 65.1%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 58              | -               | 405               | 1852              | 1214           | 33.4%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 8               | -               | 121               | 1860              | 186            | 65.1%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 57              | -               | 828               | 1923:1955         | 1006+268       | 65.0 : 65.0% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 2                 | 1751              | 156            | 1.3%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 194               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 9                 | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 665               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 488               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

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# Full Input Data And Results

## Scenario 11: 'Design Year 2033 aM' (FG11: 'Design Year 2033 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 57.0%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 57.0%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 52              | -               | 500               | 1854              | 1092           | 45.8%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 14              | -               | 172               | 1859              | 310            | 55.5%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 51              | -               | 688               | 1925:1955         | 704+504        | 57.0 : 57.0% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 4                 | 1619              | 144            | 2.8%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 308               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 3                 | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 424               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 629               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                                             | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                                       | -              | -             | 21                    | 0                            | 0                           | 5.1                   | 1.7                          | 0.0                                | 6.9                 | -                         | -                                | -                          | -                    |
| Fortfield Road && Wainsfort Road Junction                                                                                                                                                                                                                                        | -              | -             | 21                    | 0                            | 0                           | 5.1                   | 1.7                          | 0.0                                | 6.9                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                                              | 500            | 500           | 21                    | 0                            | 0                           | 1.4                   | 0.4                          | 0.0                                | 1.9                 | 13.7                      | 6.9                              | 0.4                        | 7.4                  |
| 2/1                                                                                                                                                                                                                                                                              | 172            | 172           | -                     | -                            | -                           | 1.6                   | 0.6                          | -                                  | 2.3                 | 47.4                      | 3.9                              | 0.6                        | 4.5                  |
| 3/2+3/1                                                                                                                                                                                                                                                                          | 688            | 688           | 0                     | 0                            | 0                           | 2.0                   | 0.7                          | 0.0                                | 2.7                 | 13.9                      | 7.6                              | 0.7                        | 8.3                  |
| 4/1                                                                                                                                                                                                                                                                              | 4              | 4             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.1                 | 50.7                      | 0.1                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                                              | 308            | 308           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                              | 3              | 3             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                                              | 424            | 424           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                                              | 629            | 629           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                      PRC for Signalled Lanes (%):    57.9                      Total Delay for Signalled Lanes (pcuHr):    6.88                      Cycle Time (s):    90<br>PRC Over All Lanes (%):    57.9                      Total Delay Over All Lanes(pcuHr):    6.88 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

## Full Input Data And Results

## Scenario 12: 'Design Year 2033 PM' (FG12: 'Design Year 2033 PM', Plan 1: 'Network Control Plan 1')

| Item                                                       | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| Network: Residential Development, Fortfield Road, Terenure | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 68.8%        |
| Fortfield Road && Wainsfort Road Junction                  | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 68.8%        |
| 1/1                                                        | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 58              | -               | 425               | 1852              | 1214           | 35.0%        |
| 2/1                                                        | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 8               | -               | 128               | 1861              | 186            | 68.8%        |
| 3/2+3/1                                                    | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 57              | -               | 869               | 1923:1955         | 1007+267       | 68.3 : 68.3% |
| 4/1                                                        | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 2                 | 1751              | 156            | 1.3%         |
| 5/1                                                        | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 203               | Inf               | Inf            | 0.0%         |
| 6/1                                                        | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 11                | Inf               | Inf            | 0.0%         |
| 7/1                                                        | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 698               | Inf               | Inf            | 0.0%         |
| 8/1                                                        | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 512               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                                             | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                                       | -              | -             | 26                    | 0                            | 0                           | 4.5                   | 2.4                          | 0.1                                | 7.0                 | -                         | -                                | -                          | -                    |
| Fortfield Road && Wainsfort Road Junction                                                                                                                                                                                                                                        | -              | -             | 26                    | 0                            | 0                           | 4.5                   | 2.4                          | 0.1                                | 7.0                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                                              | 425            | 425           | 20                    | 0                            | 0                           | 0.8                   | 0.3                          | 0.1                                | 1.2                 | 9.7                       | 4.7                              | 0.3                        | 5.0                  |
| 2/1                                                                                                                                                                                                                                                                              | 128            | 128           | -                     | -                            | -                           | 1.4                   | 1.1                          | -                                  | 2.5                 | 69.0                      | 3.1                              | 1.1                        | 4.1                  |
| 3/2+3/1                                                                                                                                                                                                                                                                          | 869            | 869           | 6                     | 0                            | 0                           | 2.3                   | 1.1                          | 0.0                                | 3.4                 | 13.9                      | 12.4                             | 1.1                        | 13.5                 |
| 4/1                                                                                                                                                                                                                                                                              | 2              | 2             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 49.5                      | 0.0                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                                              | 203            | 203           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                              | 11             | 11            | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                                              | 698            | 698           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                                              | 512            | 512           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                      PRC for Signalled Lanes (%):    30.9                      Total Delay for Signalled Lanes (pcuHr):    7.00                      Cycle Time (s):    90<br>PRC Over All Lanes (%):    30.9                      Total Delay Over All Lanes(pcuHr):    7.00 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

# Full Input Data And Results

## Scenario 13: 'Design Year 2044 AM' (FG13: 'Design Year 2043 AM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 59.8%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 59.8%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 52              | -               | 525               | 1854              | 1092           | 48.1%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 14              | -               | 179               | 1859              | 310            | 57.8%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 51              | -               | 722               | 1925:1955         | 704+503        | 59.8 : 59.8% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 4                 | 1619              | 144            | 2.8%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 323               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 3                 | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 445               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 659               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

| Item                                                                                                                                                                                                                                                                             | Arriving (pcu) | Leaving (pcu) | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Uniform Delay (pcuHr) | Rand + Oversat Delay (pcuHr) | Storage Area Uniform Delay (pcuHr) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Max. Back of Uniform Queue (pcu) | Rand + Oversat Queue (pcu) | Mean Max Queue (pcu) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------------------|------------------------------|-----------------------------|-----------------------|------------------------------|------------------------------------|---------------------|---------------------------|----------------------------------|----------------------------|----------------------|
| Network: Residential Development, Fortfield Road, Terenure                                                                                                                                                                                                                       | -              | -             | 22                    | 0                            | 0                           | 5.5                   | 1.9                          | 0.0                                | 7.4                 | -                         | -                                | -                          | -                    |
| Fortfield Road & Wainsfort Road Junction                                                                                                                                                                                                                                         | -              | -             | 22                    | 0                            | 0                           | 5.5                   | 1.9                          | 0.0                                | 7.4                 | -                         | -                                | -                          | -                    |
| 1/1                                                                                                                                                                                                                                                                              | 525            | 525           | 22                    | 0                            | 0                           | 1.5                   | 0.5                          | 0.0                                | 2.0                 | 14.0                      | 7.4                              | 0.5                        | 7.9                  |
| 2/1                                                                                                                                                                                                                                                                              | 179            | 179           | -                     | -                            | -                           | 1.7                   | 0.7                          | -                                  | 2.4                 | 48.2                      | 4.1                              | 0.7                        | 4.8                  |
| 3/2+3/1                                                                                                                                                                                                                                                                          | 722            | 722           | 0                     | 0                            | 0                           | 2.1                   | 0.7                          | 0.0                                | 2.9                 | 14.4                      | 8.5                              | 0.7                        | 9.3                  |
| 4/1                                                                                                                                                                                                                                                                              | 4              | 4             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.1                 | 50.7                      | 0.1                              | 0.0                        | 0.1                  |
| 5/1                                                                                                                                                                                                                                                                              | 323            | 323           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                              | 3              | 3             | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 7/1                                                                                                                                                                                                                                                                              | 445            | 445           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| 8/1                                                                                                                                                                                                                                                                              | 659            | 659           | -                     | -                            | -                           | 0.0                   | 0.0                          | -                                  | 0.0                 | 0.0                       | 0.0                              | 0.0                        | 0.0                  |
| C1                      PRC for Signalled Lanes (%):    50.5                      Total Delay for Signalled Lanes (pcuHr):    7.39                      Cycle Time (s):    90<br>PRC Over All Lanes (%):    50.5                      Total Delay Over All Lanes(pcuHr):    7.39 |                |               |                       |                              |                             |                       |                              |                                    |                     |                           |                                  |                            |                      |

## Full Input Data And Results

**Scenario 14: 'Design Year 2044 PM'** (FG14: 'Design Year 2043 PM', Plan 1: 'Network Control Plan 1')

| Item                                                              | Lane Description                                 | Lane Type | Controller Stream | Position In Filtered Route | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  |
|-------------------------------------------------------------------|--------------------------------------------------|-----------|-------------------|----------------------------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|
| <b>Network: Residential Development, Fortfield Road, Terenure</b> | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 71.6%        |
| <b>Fortfield Road &amp;&amp; Wainsfort Road Junction</b>          | -                                                | -         | N/A               | -                          | -          |             | -          | -               | -               | -                 | -                 | -              | 71.6%        |
| 1/1                                                               | Wainsfort Road (Exit) Right Left Ahead           | O         | N/A               | N/A                        | A          |             | 1          | 58              | -               | 446               | 1852              | 1214           | 36.7%        |
| 2/1                                                               | Fortfield Road (South Entrance) Ahead Left Right | U         | N/A               | N/A                        | D          |             | 1          | 8               | -               | 133               | 1861              | 186            | 71.5%        |
| 3/2+3/1                                                           | Fortfield Road (East Exit) Left Right Ahead      | O+U       | N/A               | N/A                        | C          |             | 1          | 57              | -               | 911               | 1923:1955         | 1008+266       | 71.6 : 71.6% |
| 4/1                                                               | The Orchard (Exit) Ahead Right Left              | U         | N/A               | N/A                        | B          |             | 1          | 7               | -               | 2                 | 1751              | 156            | 1.3%         |
| 5/1                                                               | Fortfield Road (South Entrance)                  | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 212               | Inf               | Inf            | 0.0%         |
| 6/1                                                               | The Orchard (Entrance)                           | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 11                | Inf               | Inf            | 0.0%         |
| 7/1                                                               | Wainsfort Road (Entrance)                        | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 732               | Inf               | Inf            | 0.0%         |
| 8/1                                                               | Fortfield Road (East Entrance)                   | U         | N/A               | N/A                        | -          |             | -          | -               | -               | 537               | Inf               | Inf            | 0.0%         |

## Full Input Data And Results

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